READING MATTER A Review of the Hardware, Iron and Metal Trades.

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Hardened and Tempered Glass.

In a paper read before the British Society of Arts a short time ago, Mr. F. Siemens spoke in an interesting manner of the above subject. Having satisfied himself by a series subject. Having satisfied himself by a series of experiments of the true cause of the spontaneous fracture of glass, Mr. Siemens invented processes of manufacture by means of which glass may be thoroughly toughened, or, as he prefers to call it, hardened. The principle upon which the processes depend consists in cooling the glass, not in proportion to its surface, but to its volume or capacity for heat. The method employed will be readily understood by considering a sheet of uniform thickness, which, after having been heated uniformly to a sufficient degree, must be cooled on the surfaces of its two parallel sides only, leaving the edges uncooled. This is done by placing the heated sheet of glass between two cold slabs of suitable material, prepared in a peculiar manner. Uniform cooling of the whole sheet is thus secured, no matter in a peculiar manner. Uniform cooling of the whole sheet is thus secured, no matter what its shape, because the edges are not subject to the cooling influence caused by the surfaces between which the glass is placed. The plan adopted for various articles varies with their shapes, but it is on the principle of uniform heating and cooling that the author's processes of manufacturing hard glass are based. Of these the two principal are known as press-hardening and casting. hard glass are based. Of these the two principal are known as press-hardening and casting, but, besides these, there is a third, theoretically less perfect than the others, viz., semi-hardening or hard-tempering; this, though less important, may be advantageously employed where presses would be unsuitable and casting impossible or difficult, as in the case of bottles, lamp chimneys, &c.

Press-hardened glass has now been made, with constantly-increasing success, for six years. The articles are mainly of plate and sheet glass, either flat or bent into a variety

with constantly-increasing success, for an years. The articles are mainly of plate and sheet glass, either flat or bent into a variety of shapes. Besides plain work, decorated sheets, such as sign boards with enameled inscriptions, figures and other ornaments, form an important part of the goods produced; the process, as already stated, is, therefore, one of manufacture (the goods receiving through it their definite shape and decoration), and not simply one of hardening or toughening. The glass is so hard that the diamond will not touch it, and it cannot, therefore, be cut or bent after manufacture;

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the diamond will not touch it, and it cannot, therefore, be cut or bent after manufacture; it may, however, be polished, etched and slightly ground; its strength is at least eight times that of ordinary glass.

The process of manufacture is as follows: The glass is first cut in the ordinary way to the requisite shape and dimensions, and is then exposed to the radiant heat of a peculiarly-constructed furnace until quite soft; as soon as it has attained the necessary tem. then exposed to the radiant heat of a peculiarly-constructed furnace until quite soft; as soon as it has attained the necessary temperature it is placed between cold metal plates, to be cooled down with a rapidity which varies with the thickness of the glass, but is in any case very great. The heating and cooling of sheet glass of ordinary thickness last altogether a minute and a half, a minute being the length of the heating and half a minute that of the cooling operation. It is a remarkable circumstance that glass may be thus heated and cooled in so short a space of time without either cracking or breaking; this is altogether due in the case of the operation of heating to the uniform temperature of the furnace, and to the heat being produced entirely by radiation; should these conditions not be fulfilled, the glass would break to a certainty. As regards the success of the cooling operation, this depends upon the uniform temperature of the glass before it is cooled, and upon that of the metal plates between which it is placed while being cooled. This uniformity of temperature and the total absence of draft, which would cause irregular cooling, are the conditions under which the whole operation can be carried on with assured success. under which the whole operation can be car-

The surface of the metal plates or molds used for the presses may be so prepared as to produce more or less cooling effect on the lass as required. If the glass is to be hardened to a very high degree, the metallic surfaces must be of very high heat-conducting power, such as copper, and must be left quite bare; the glass must also be raised to a very high temperature, as it would otherwise graph degree calling. If it is processed wise crack during cooling. If it is proposed to harden the glass to a lower degree, surfaces of iron are used, this metal not being so good a conductor of heat as copper, while the temperature of the glass is also kept lower. By covering the surfaces of the iron presses with wire gauze, their cooling effect may be reduced to any required extent, so that a certain amount of hardening may be

with the heated article of glass within it, is allowed to cool in the open air. Whenever may have almost any variety of form and allowed to cool in the open air. Whenever may have almost any variety of form and its afficult matter to handle the heated glass, instead of placing it hot into the casing, the casing with the glass inside it is inserted; in the heating furnace for the requisitive of thickness, can be dealt with. The third and lest process to be described.

The third and lest process to be described, which Mr. Siemens considers the most valuable of the three, is a peculiar mode of casting hand glass should be brought to a uniform the moltand glass should be brought to a uniform the horizontal primers. This has not yet been introduced on a manufacturing scale, but the experimental castings produced have turned out to be quite satisfactory in every way.

Is to be produced. Glass cast in this way have almost any variety of form and heat respect the interval of the last respect this one case there is a strong tension or strain in the molecules, which causes them to break up spontaneously; and in the cupola to differ the fact that it would be possible to melt the iron more quickly, if the fuel were since strain the molecules, which causes them to break up spontaneously; and in the cupola to differ the fact that it would be possible to melt the iron more quickly, if the fuel were since strain in the molecules, which causes them to break up spontaneously; and in the cupola to differ the fact that it would be possible to melt the iron more quickly, if the fuel were since strain in the molecules, which as such that the way provided the fact that it would be possible to melt the iron more quickly, if the fuel were since strain in the molecules, which as such that it would be possible to melt the iron more quickly, if the fuel were since strain in the molecules, which as such that the outer case, to counteract that to differ the fact that it would be to melt with if them to break up spontaneously; and in the cup

cupola to-day were then in use. It was a modification of the crucible, which was considered necessary for the accumulation of the molten iron. Instead of charging the iron into a crucible and placing it in the fire, it was put under a shaft, open below, and fitting the crucible well. Then the iron and fuel were charged into the top of the shaft, which at its lower end was provided with a clay crucible, into which air was blown by leather bellows. The shaft was 20 to 24 inches high. When melting was to begin the shaft was placed on top of the crucible, the seam luted with clay and the lower part of the apparatus covered by fine charcoal. Fig. 1, reproduced from Réaumur's book, shows such a cupola in full blast at the left hand, the crucible not being visible. It represents the model practice of the day at the Cusin Foundry, Faubourg St. Antoine. The cupola was first heated by burning charcoal in it, and then it was charged with the iron broken into small pieces. When the necessary quantity was melted the blast was stopped, the top taken off and the crucible poured out in the manner shown to the right in Fig. 1.

Curiously the principal use for this early.

broken into small pieces. When the necessary quantity was melted the blast was stopped, the top taken off and the crucible poured out in the manner shown to the right in Fig. r.

Curiously the principal use for this early, type of cupola was by itinerant founders, who traveled about the country carrying their furnaces with them. Naturally, crucible melting was not adapted to this trade, which Réaumur quaintly describes as follows: "There are founders who do nothing every day but to melt cast iron and no other metal. Their number is not large, and I do not know whether there are more than one or two in Paris. These founders travel through the country and make their appearance gradually in different provinces. They make cast-iron weights, plates for different purposes, cast new and patch old holloware. These founders buy the pig iron they want from peddlers who gather cast-iron sorap in the villages. In the vicinity of Paris this scrap is exchanged for apples. A man with scales in one hand, leading a horse laden with poor fruit, does the business, exchanging apples for iron, weight for weight."

The difficulty of handling the shaft or top was a limitation to the size of the apparatus in foundries, and Réaumur tried to overcome this drawback by hanging it in trunnions, like the Bessemer converter of our own day, simply tipping it to pour the iron from a taphole located opposite the tuyere. Réaumur's plan is shown in our engraving, Fig. 2. The whole apparatus, it will be seen, was mounted on a frame provided with rollers. Cupolas of this design were not introduced till long after Réaumur's native country, Norbert, a Swediah mining official, reports that he saw cupolas of this design in Russia in the beginning of the present century which were 7 feet high, and they were afterward introduced into Sweden. Although Réaumur's mative country to the Continent. As an example of the consumption of fuel in these cupolas, which would appear extraordinary in our day, it may be stated that it toek 100 pounds of each to melt 130 is scattered by the hundred in old foundries and machine shops, is slowly giving way to new types.

There are something like 800 men engaged in building iron steamers in one establishment in Norway. On comparing the wages paid at the yard in question, Mr. Raylton Dixon, a well-known shipbuilder of the Tees, estimates that upon a vessel of a given size the labor will cost 25 per cent less than that the labor will cost 25 per cent. less than that expended on a similar vessel built in England. Deduct from this advantage the freight on the materials used in its construc-tion, which at the present time, with the

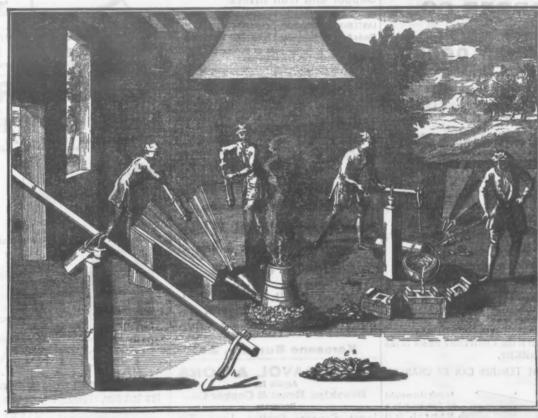


Fig. 1 .- The Cusin Foundry in the Beginning of the Eighteenth Century.

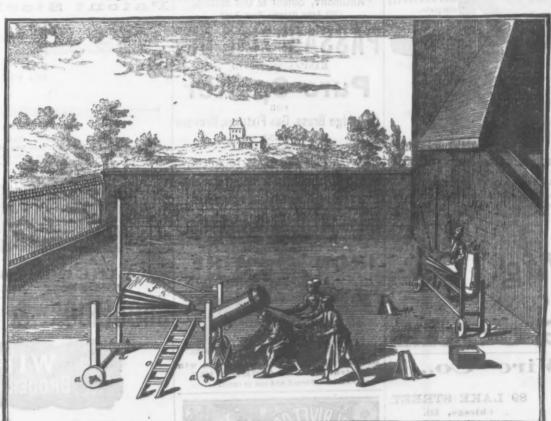


Fig. 2.—Réaumur's Tilting Portable Oupola. ANCIENT FOUNDRY PRACTICE.

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that a certain amount of hardening may be produced without rendering it necessary to make it difficult to handle, or to cause it to make it difficult to handle, or to cause it to make it difficult to handle, or to cause it to make it difficult to handle, or to cause it to make it difficult to handle, or to cause it to make it difficult to handle, or to cause it to make it difficult to handle, or to cause it to make it difficult to handle, or to cause it to make it difficult to handle, or to cause it to make work.

Hard cast glass is manufactured in the following manner: Glass, melted in a tank furnace is tapped into molds, as with iron large radiation furnaces as press—hardened glass is made in the same station. The same authority further admits that carried on in an iron foundry, but which the following is a description: Finded articles, which are of a shape to which presses cannot be easily applied, such as hot cless, are heated up to a temperature and and the glass inside it are heated and cooled together. The material or mixture of sheet iron, which is see arranged that the heated article shall not touch the name raids of the casing, in order to effect this, the casing is only at a very few points. The casing, it only at a very few points. The casing, it only at a very few points. The casing, it only at a very few points. The casing, it only at a very few points. The casing, it only at a very few points. The casing, it only at a very few points. The casing, it only at a very few points. The casing, it only at a very few points. The casing, it only at a very few points. The casing, it only at a very few points. The casing, it only at a very few points. The casing, it only at a very few points. The casing, it only at a very few points. The casing, it only at a very few points. The casing, it only at a very few points. The casing, it only at a very few points. The casing, it only at a very few points. The casing is only at a very few points. The casing, it only at a very few points. The casing, it only at a ve

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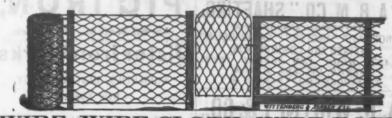


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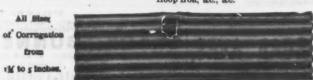
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CHARLES K. BARNS. The Work of the Hartford Steam Boiler Inspection and Insurance Company.

We present herewith a summary of the york done by the inspectors of the Hartford Steam Boiler Inspection and Insurance Company for the year 1884, and, for the purpose of ready comparison, the summaries for the preceding year and the whole time that the company have been in business to January 1, 1885:

Visits of inspection made. 44,048
Total number boilers inspected. 66,695
Total number boilers inspected internally. 24,855
Total number boilers tested by hydraulic pressure. 41,800
Total number dangerous defects reported. 7,449
Total number boilers condemned. 403
Total number boilers condemned. 403 24,408 The following is the detailed analysis of defects reported during the year 1884:

Whole Nature of defect.

Cases of deposit of sediment...

Cases of incrustation and scale.

Cases of internal grooving...

Cases of external corrosion.

Cases of external corrosion.

Broken and loose braces and stays. 4,850 7,078 214 1,645 2,608 stays... ettings defective... urnaces out of shape. ractured plates.... urned plates. ned plates... tered plates... es of defective riveting... ective heads... ious leakage around tube rious leakage at seams. struction. Pressure gauges defective. Bollers without pressure gauges One defect unclassified....

Total..... 7,449 .. 44,900 Grand total of the inspector's work since the company began business to January I, 1885: Visits of inspection made, 275,223; the company began business at state 1, 1885: Visits of inspection made, 275,223; whole number of boilers inspected; 560,979; complete internal inspections, 196,436; boilers tested by hydrostatic pressure, 42, 158; total number of defects discovered, 303,718; total number of dangerous defects, 64,216; total number of boilers condemned,

Exhaust Steam for Heating.

We take the following correspondence

BUFFALO, N. Y., March 5, 1885.

To the Editor of Mechanics: Will you through your paper give me some information in regard to the use of exbaust steam for heating purposes. I find that there is a difference of opinion among practical men as to whether it can be used to advantage. I should be glad to hear something on the subject from some one who has given it a full and fair trial. The question seems to be simply: Does the back pressure caused by the use of exhaust steam through coils or radiators neutralize the advantage of its use for heating purposes?

J. R. L. use for heating purposes?

BUFFALO, N. Y., March 3, 1885. To the Editor of Mechanics: I have re-cently read an article recommending the use of exhaust steam for heating a large factory, instead of allowing it to escape freely into the air. If this is practical it looks like quite a saving of fuel. What do you think of it?

ANTI-WASTE.

themselves to those contemplating the erection of steam-heating plants, and it is more than probable that the arrangements made than probable that the arrangements made in many cases, unless based upon good pro-fessional advice, have proved either wholly unsatisfactory or at best much less satis-factory than they might have been. It is apparently forgotten in numerous instances that the plant designed for one system of heating cannot yield good results in connec-tion with some other system and accordtion with some other system, and, accordingly, live-steam heating plants should never be used for exhaust-steam heating with any hope of economy, and, vice versa, the com-paratively greater cost of the exhaust steam

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Manufactured from use of coils and radiators, which do a great deal toward resisting the free circulation of the steam. The ideal system of heating by exhaust steam would, of course, be one in which the steam from the engine is carried away so promptly that there is no back pressure on the piston greater than the atmospheric pressure, and then the gain would be the entire heating done. Such a condition is very difficult—in fact, impossible to attain as a certain amount of pressure is necessary to drive the exhaust steam into the open air, and if it be forced into a heating system a still greater pressure will naturally be necessary to overcome the additional friction in passing through the pipe system. As it is desirable to know the limits in which, notwithstanding the back pressure, the exhaust steam may be used profitably, it may be of of interest to state that some two years ago

Back pressure = Number of cubic feet of space heated. Cubic feet of steam used in engine per hour

from Mechanics for April:

BUFFALO, N. Y., March 5, 1885.

of it?

Answer.—The questions asked by our correspondents have undoubtedly often suggested

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Light Steel Rails.

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Frictionless. Indestructible. Perfect. Send for Circular. COHOES IRON FOUNDRY MACHINE CO., COHOES, N.Y back pressure within which it is advantage on the space heated is considerable. As an illustration of the degree to which back pressure may be avoided, it may be well to state here that some time ago in building a candle factory in this city an exhaust-steam heating plant was agreed upon, and, after having been in practical operation for several months, an indicator card taken from the engine showed that the total back pressure amounted to something less than I pound, and the expense of heating the establishment was thus reduced to only a nominal figure. Heating by exhaust steam has the disadvantage of requiring a greater first cost in erecting the the same and to the proposed for accomplishing this end is that the various trades shall each appoint a competent instructor to give lessons at the expected that the various rades shall each appoint a competent instructor to give lessons at the expected that the various rades of the measure expected. greater first cost in erecting the plant, but, as this will very soon be covered by the sav-ing of fuel effected, the advantages of the system will be readily appreciated.

Technical Education.

At the present time the general subject of technical education is being widely and earnestly discussed. Employers are begin-ning to see that the supply of trained workmen will not remain inexhaustible if nothing is done to replenish it. Parents are begin-ning to perceive that their sons might do better than to become bookkeepers or clerks superfluous clergymen or unemployed physicians. Even young men who are entering upon the active duties of life are beginning These extracts fairly represent the sentiment of many of those who have given attention

to the problem.

To what extent the public schools should To what extent the public schools should change their present course of study and undertake the business of technical education is a question of considerable importance. One of the trade organizations some time since issued a circular, addressed to those who have the supervision of public education, expressing its sense of the high importance of reinforcing the ranks of mechanics by a system of public-school edumechanics by a system of public-school edu-cation which shall fit boys to enter into trades and afford some assurance that their preparatory studies will be likely to assist them in making themselves intelligent and skilled workmen. The circular explains that very few of the pupils of the technical schools, although they may have attended the public schools previously, have had any instruction in freehand drawing and geometry. These studies are included in the ordinary school course of the cities and towns, and attention is directed to the fact that boys intending to learn trades leave school earlier than those intending to follow the carlier than those intending to follow the professions, and usually before reaching that part of the school course in which freehand drawing and geometry are taught. Accordingly, they are deprived of the very studies which they especially need to make them skilled and intelligent mechanics. Other critics of the publicated system go further than this. Thay school system go further than this. They desire that the course of instruction should

metals and the use of tools. Some of the public schools are at present actually trying the experiment of introducing into the usual curriculum a technical course of this sort. The great objections to such a change are that reading, writing and arithmetic must be taught, whatever else is neglected, and that it is impracticable for the public schools to teach the principles and vertices.

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The pulladelphia Press says that a prospector says in the studies pursued knowledge.

for more practical education. There are also the New York Trade Schools, established by German colonies.

petent instructor to give lessons at the schools, the trustees of the museum exercising a supervision and providing suitable models and other apparatus. Strange to say, the only trade that has so far operated with the trustees of the Metropolitan Museum in this manner is the carriage-building trade, represented by the Carriage Builders' National Association. A great obstacle encountered in the progress of these schools is the indifference of the trades themselves,

with the single exception we have mentioned.

The indifference of some of the trades would seem to be that of calculation, if we may judge by the position said to be taken by the celebrated firm of Tiffany & Co., of this city. This house, it is said, argues that since there are firms that are unable to proto feel that the generous wages paid to skilled foreigners would be more pleasant to receive than the small salaries paid by shopkeepers or the meager incomes received. who can produce them, the only method to pursue is to educate their workmen in their pursue is to educate their workmen in their own shops. Therefore they decline to cooperate with the Museum Schools. This position will no doubt be a surprise to many who have not considered the subject, but upon reflection it will be seen that there is self-interest at the bottom of it, and this may be supposed to control almost all such which mocks soul and body, when, if their away at bookkeepers' desks or bleach in the gloomy recesses of dry-goods stores at pay which mocks soul and body, when, if their brains and hands had been made acquainted with a good trade, they would have enough to make life fairly worth living." Another exclaims: "Throughout the length and breadth of the land there is a cry for such an addition to the education of our youth as shall fit them for some other business than standing behind counters or sitting at desks." These extracts fairly represent the sentiment which in a certain measure will defeat the purpose they have in view, and therefore by every means in their power they are opposing schools of the kind we have described The trade schools of the kind we have described. The trade schools established by Mr. Auchmuty have suffered severely from the opposition of trades unions, which in some instances have announced their unwillingness to allow the graduates from these schools to

work in the same shops with their members.

With reference to the education of artisans Professor Huxley has written as follows: "For myself, I look upon simple knowledge by itself as of far less importance to the artisan in his career in life than a number of other qualities. I do not say that knowledge is not an extremely good thing, but if a man is to make a good workmen, or to do anything in practical life, you must give him an education which fits him for the conditions of life with which he has to deal, and you will not give him that education by filling his head with a number of intellectual filling his head with a number of intellectual abstractions, or even by giving him the largest acquaintance with scientific principles. And I think it is a profound mistake, considering the career to which the majority of artisans or persons in that class of life are necessarily bound, ever to take them out of the wholesome discipline of practical contact with the realities of life for the mere sake of giving them a greater or less amount of knowledge. A man who is inclined to do so may man who is inclined to do so always pick up knowledge, and he may do so at the same time that he is getting his educadesire that the course of instruction should give boys and girls a practical knowledge of the industrial arts; that it should acquaint them with principles of construction, modeling in clay, and working in metals and the use of tools. Some of the public schools are at present actually trying the experiment of introducing into the nothing to do with industrial pursuits; but I have had to do with mankind in many stations in life, and it seems to me that what is wanted in a foreman is a man of energy, punctu-ality, business habits and power of dealing with men, all of which things are not to be got out of books or laboratory work. Those and that it is impracticable for the public schools to teach the principles and practices of all the trades. Children from 5 to 15 years of age do not usually know to what pursuits they are best adapted. Some children who attend the public schools may naturally be expected to become members of the liberal professions, and finally, it is argued, the purpose of an education is as much to secure him to know where to go to find more if he mental discipline as to acquire useful wants it."

are dreaming of something else which they think worthier than the work and life of a skilled mechanic. For this state of things he blames the public schools. In support of this argument he directs attention to the fact that in all the school books the models held up for imitation are statesmen, lawyers, orators, &c., rather than those who have been earnest, conscientious hand-workers.

In this connection brief mention of some of the more prominent schools devoted to technical education will be of interest. In this city there are the Industrial Art Schools of the Metropolitan Museum of Art, the St. Johns School on 32d street, the Free Drawing Schools of the General Society of Mechanics and Tradesmen, on 16th street, the School of Messrs R. Hoe & Co., and a number of other similar institutions, all of which have responded to the demand of the hour for more practical education. There are also the New York Trade Schools established by

Paris, 1878.



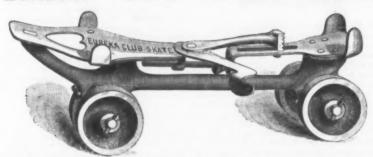
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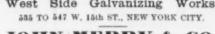
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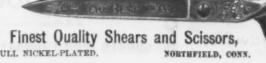
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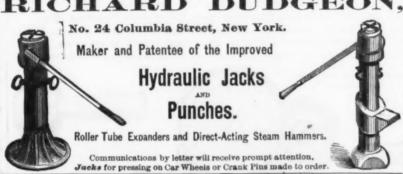
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Threshing Machinery.

The thirty-fifth annual catalogue, just is-ed by the Pitts Agricultural Works, of Buffalo, N. Y., supplies a large number of illustrations, with accompanying descriptions, of their steam and horse power threshing machinery and Buffalo Pitte engines and boilers. The different parts of the machines are taken up in detail, and the materials of which they are constructed, and the manner in which they are finished and put in place, are dwelled upon at considerable length. Under the head of engines and boilers we find complete descriptions of the arrangement of their straw-burning engines, with tables of dimensions, and also short paragraphs de-voted to computation and comparison of horse powers, long and short stroke engines. norse powers, long and snort stroke engines, indicator diagrams and a large number of other particulars. As a means of giving prospective purchasers an idea of the character of their machinery the catalogue is eminently successful, and will undoubtedly be appreciated by those who propose making purchases in this line.

Foot and Power Presses.

The Ferracute Machine Company, of Bridgeton, N. J., have just issued two illustrated specimen sheets of their foot and power presses, dies and other sheet metal tools of all kinds. One of them, known as List 3, and dated January 1, 1885, illus-trates a portion of the machinery shown in trates a portion of the machinery shown in the illustrated pamphlet catalogue issued by the company, and describing 75 different kinds of presses, a great variety of dies and other small tools used in making tin boxes and cannisters of any kind, besides other special machinery. This catalogue will be sent to any one who is interested in these kinds of goods and will amply for it these kinds of goods and will apply for it. The second circular, List 4, is dated March I, 1885, and, in addition to descriptive pari, 1955, and, in addition to descriptive particulars of one of their power punch presses, give a list of extra appliances and a price list and table of dimensions. Both circulars will no doubt prove of a good deal of interest to sheet-metal workers.

Grinding Machines.

The Brown & Sharpe Mfg. Co., of Providence, R. I., have favored us with their recently-issued book on grinding machines, which, while not entering into minute details, gives a plain and comprehensive description of the construction and use of the universal grinding machine as built by them. It is replete with finely-executed engravings, and its value as a source of information on the subject cannot be questioned. Accompanying the book we find a small pamphlet on the universal cutter and reamer grinder made by them. This machine was designed to meet the requirements of tool-making and to meet the requirements of tool-making and jobbing shops where a great variety of tools is to be sharpened. It is constructed with due reference to the application of any special fixture which may be required for grinding. Another catalogue treats of stand-ard gears, to which we referred some time ago. Still another is of a general character, giving illustrations and brief descriptions, dimensions, &c., of the various appliances turned out in their works.

Crushing Machinery.

Messrs. Fraser & Chalmers, of Chicago Ill., are sending out illustrated pamplets devoted to the interests of their Sturtevant mill for grinding and crushing ores, phos phates, emery and other hard and refractory materials. The pamphlet supplies a number of different views, both general and detail together with sufficient particulars to enable the reader to get a fair idea of its manner of working. One of these mills, we underworking. One of these mills, we under-stand, has been running steadily for several months on copper matte at the Oreford Cop-per and Sulphur Works, near New York, and an experimental mill can be seen in this city, at the New York Ore Milling and Testing Works, at 528 West Sixteenth street.

The Hotchkiss Mechanical Boiler Cleaner.

Drilling Machines.

Messrs. Boynton & Plummer, of Worces ter, Mass., have just sent out a new illus-trated catalogue of their improved drilling machines, bolt cutters, &c. It is intended to take the place of all others heretofore iswed, and illustrates and describes the various appliances in a very satisfactory way.

Among the machinery illustrated we find different types of upright self-feeding drills, horizontal drills, bolt cutters, bolt cutting and tapping machines, tire benders, shrink-

Patents.

Messrs. Frank Scheehy & Co., 709 Fourth street, N. W., Washington, D. C., have issued an interesting little pamphlet relating to American and foreign patents. While chiefly of an advertising nature, it supplies some interesting particulars on such questions as how to obtain a patent, methods of application, official examinations, designs, wes, trade-marks and copyrights, &c.

Fire Alarms.

A neat little catalogue which has just been A neat little catalogue which has just been issued by the Lexington Manufacturing Company, of Lexington, Ky., supplies illustrations and particulars of what is known as the Lexington improved fire-alarm telegraph system for cities or factories. The engravings show different views of signal-boxes, electro-mechanical gongs, tower bell strikers, tappers, &c. In addition we find an interesting description and illustrations relating to the Lexington combination door

lock, which works without a key, is made on entirely new principles, and for which a number of important advantages are claimed.

Special Machinery.

Mr. J. Q. Maynard, 12 Cortlandt street, New York, has sent us a number of illustrated pamphlets devoted to the Wythe patent automatic safety hoist; engineers', machinists' and blacksmiths' tools, and other machinery specialties. A large number of illustrations, with accompanying descriptive particulars, price lists and tables of dimensions, are supplied, the whole forming a convenient collection of information for those venient collection of information for those who either contemplate making purchases in this line or who are interested in such appliances in a general way.

The Dexter Folding Machine.

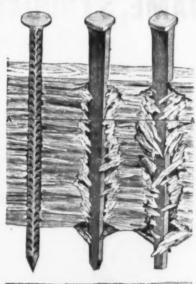
A well-arranged pamphlet illustrating and A well-arranged pamphlet illustrating and describing the above machine has just been issued by the Dexter Mfg. Co., of Des Moines, Iowa. The Dexter folder is claimed to have been the first and only successful folding machine ever placed upon the market for taking the place of the fly-table of the ordinary printing press, and the particulars furnished in the catalogue are thus of more than ordinary interest. thus of more than ordinary interest.

Threshing Machines and Engines.

The Westinghouse Machine Company, of Schenectady, N. Y., have sent us their new catalogue devoted to threshing machinery. It is fully illustrated, and supplies matter of nable interest and value to the

Wire Nails.

In a circular issued some time since by the HP Nail Company, of Cleveland, Ohio, there is presented an engraving showing the effect on soft wood of an ordinary cut nail with square point, also of a cut nail with a chisel point, and, in comparison, a wire nail. chisel point, and, in comparison, a wire nail. The illustration below, which is a fac simile will convey the idea to the reader's mind. We have examined the original block of wood from which this illustration was prepared, and can testify to the accuracy of the delineation. If there be any error at all, it is that the fractures of fiber with the cut nails are not shown as great as they are in





The Effect on Wood of Nails of Different Shapes and of Different Kinds of Points.

cleaves the wood with scarcely any disrup-Mr. James F. Hotchkiss, of 96 John street, New York, has just sent out new editions of his little book, "How to Keep Boilers Clean," which, besides containing the usual description and general and detail views of his well-known boiler cleaner, supplies a large amount of interesting information on boiler generally and boiler incrustations. The book has been considerably enlarged and will be found useful for reference in many cases.

Drilling Machines. withdrawing a wire nail from the wood into which it has been driven has the effect of lessening its hold simply in proportion to the amount it is drawn out. The nail being of the same diameter throughout, the wood binds as closely upon such portions as re-main after it has been partly withdrawn as at the outset. This fact, in connection with the advantage already alluded to, namely, that of not fracturing the wood, renders wire nails of decided advantage in house wire nails of decided advantage in house building over ordinary cut nails, and to this the company above mentioned are directing special attention. Although wire nails have been before the public for some time, they are yet a novelty to many builders, and this account of their advantages will be of in-terest. Less wire nails are required for the same strength, and smaller nails of the wire pattern are as serviceable as larger pails of pattern are as serviceable as larger nails of the cut style. The advantage attending the use of wire nails has become so thoroughly understood and appreciated in Cleveland, Ohio, where these goods are largely manu-factured, that we are informed that it is very common for real estate agents, in the enumeration of the advantages of certain pieces of property, to direct the attention of would be purchasers to the fact that the

CORPORATE MARA

their Corporate Mark.

AT DEC 26 184

INFRINGEMENT OF JOHN WILSON'S TRADE MARK, MASSACHUSETTS, U.S.A.

JOHN WILSON'S BUTCHERS' KNIVES BUTCHERS' STEELS

SHOE KNIVES



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ACKNOWLEDGMENT AND AGREEMENT.

"WHEREAS, I, GEORGE A. ROBINSON, of West Mansfield, County Bristol, State of Massachusetts, have heretofore manufactured and sold certain vives bearing a Mark which is claimed to be an imitation of the trade-mark need by John Wilson, of Sheffield, England, which consists of four peppercorns and iamond, under the mistaken belief that I had the right to do so.

NOW, This, is to Witness, that, in consideration of the forbearance of the presentatives of the said John Wilson to sue me for damages for the wrong resaid, I do hereby undertake and agree,

FIRST, to surrender and deliver to the Attorneys for the said John Wilson, all knives now on hand, and in my possession, or under my control, bearing the said imitation trade-mark, and

BECOND, I further undertake and agree to and with the said John Wilson, and his legal representatives, not to manufacture or sell, or cause to be manufactured or sold, at any time in the future, Knives or other Outlery, bearing his trade-mark aforesaid, or any imitation or simulation thereof. IN WITNEES WHEREOF. I have hereunto set my hand and seal at West Mansfield, aforesaid, this thirty-first day of May, 1868.

E. M. REED."

G. A. ROBINBON L. S.

WITHERS :- E. M. REED."
(Attorney for Defendant.) Imitation

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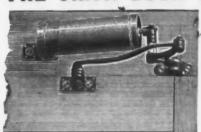
These Skates are in use in many Rinks, and give great satisfaction on account of their easy running, without the jarring sensation which is common with many other skates. Address all orders to

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PATENTED,

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December, 93, 1878.

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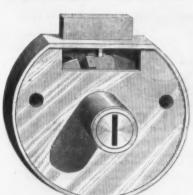
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Recent Progress in Engineering.

Sir Frederick Bramwell, in his inaugural address as the recently inducted president of the British Institution of Civil Engineers, called attention to the progress made during late years in various departments of engineering. Taking up first the materials of construction, he noted the enormous gain in the economy of brick-making by the intro-duction of brick-making machines and the continuous kiln; the improvements in the making of artificial stones, enabling them to be produced with uniformity of quality, and of such durability as to constitute them successful rivals of natural stones. The use of wood is steadily decreasing, partly be-cause of its scarcity and of its unfitness for use where longitudinal stresses are to be encountered, and partly through the introduc-tion of other materials which are now made at less cost than formerly. Progress is to be expected in the direction of improved pro-

cesses for the preservation of timber.

The modern processes of steel manufacturers he referred to as furnishing masses of enormous magnitude and of great uniformity of quality. The processes of Siemens and of Bessemer are now supplying such steels, while the Thomas and Gilchrist method permits the use of ores formerly quite inapplicable to such purposes. The cost of cast iron is decreasing with the con-

Copper is finding new and important appli cations in the new alloys, phosphor-bronze, manganese-bronze, and other compositions. The working of heavy masses is demanding the construction of larger hammers, and it is becoming seen that light steam hammers are actually injurious to the parts forged by them. Testing machines are now in daily use in the hands of the engineer to determine the exact value of the metals proposed for use in his designs, and to exhibit the strength of completed, respectively. the strength of completed members. the strength of completed members. In bridge construction the St. Louis bridge was a novel departure in the use of steel in compression, and the New York and Brooklyn Bridge is an equally successful example of application of wires for suspension over long spans. The new bidge over the Forth, Scotland, exhibits, still another modern. long spans. The new bridge over the Forth, Scotland, exhibits still another modern novelty in its great cantilevers, the only known expedients for successfully spanning 1700 feet with a rigid structure. In railroad and canal construction, the rivalry between the two systems of transportation is best illustrated by the enormous canals now in progress and proposed to connect ocean with ocean and sea with sea, and, as in the case of the Manchester ship canal, to take ocean-going ships into the interior of take ocean-going ships into the interior of the country. This led to the study of harbor construction and reference to the methods of making and handling blocks of masonry weighing 350 tons each in the building of their sea-walls. A new and great improvement in the methods of supply of air for respiration to the workmen sent into the depths during the operations just referred to is that of absorption of exhaled carbonic acid by a basic salt, and the introduction of oxygen from under compression in small tanks carried by the diver, who is thus enabled to remain under water for considerable periods of time. In tunneling in red sandstone a speed of from 10 to 14 yards per day is attained, and of 24 yards in chalk. Dynamite and tunneling machines are making this great progress possible. Progress in motors has not been rapid dur-

ing late years. The best of recent double cylinder non-condensing steam engines de mand but 21's pounds of coal per horse-power and per hour, while the condensing engine has worked down to about 1½ pounds. The gas engine is gradually coming forward as a rival of the steam engine in small powers, its greater safety and the reduction of cur-rent expenses in various directions giving it a superiority in some respects. Watera superiority in some respects. Water-wheels have attained an efficiency of 85 per cent., and the turbine, with its high efficiency, offers great advantages in application where the fall is low or the variation of hight of tail-water considerable. In the transmission of power the introduction of water, steam and compressed air sent out from a central station is a promising direction of progress.

Distribution and Consumption of Cereals.

wheat and corn in the United States and foreign countries. The corn crop of 1884 in the United States is given at 1,795,528,400 bushels, and the stock on hand March 1, 1885, was 675,210,664, or 37.6 per cent. The amount retained for country consumption was 1,407,315,138, or 83.4 per cent. and distributed beyond country lines, 298,213,294, or 16.6 per cent. The foreign shipments of corn represent 28,000,000 bushels, against 32,000,000 bushels for a similar previous pericd. In regard to wheat, the proportion of the crop of 1884 still in the hands of growers is about 33 per cent of the crop, 169,000,000 bushels, or 50,000,000 bushels and the stock of last March, when the crop was less by 92,000,000 bushels and the stock of last March, when the crop was less by 92,000,000 bushels and the crop was less by 92,000,000 bushels and board. It is only necessary to press one of the March remainder was 119,000,000 bush

place of roots and many forage plants in

Europe.

The annual average of the supply of wheat for 1870-83 was: Production, 5,467,236,103 pounds; imports, 6,739,108,408: exports, 192,581.792; supply, 12,013,782,809. The European reports for March show that the first day of spring finds all the countries of Europe suffering more acutely than ever from the universal agricultural depression, which is growing worse mouthly. This feeling is best reflected in the simultaneous rearrangements of agricultural tariffs and in arrangements of agricultural tariffs and in the efforts that are being put forth to relieve the burdens on lands. Should the present critical relations between England and Russia culminate in warlike operations, the demand for American agricultural products will be great. The orders for canned meats and oats have already had a sensible effect upon trade, and with the demand for arms, ammunition and other warlike supplies it is expected that all branches will receive a favorable impulse.

New Ladder Bracket.

Fig. 1 of our engravings shows a new ladder bracket which is just being introduced by W. T. Comstock, of No. 6 Astor Place, New York City, while Fig. 2 shows the application of the same to a ladder hanging vertically against the walls of a building. cost of east from is decreasing with the use of struction of larger furnaces and the use of more highly heated blast, and with a better understanding of the chemistry of the proeived at a glance, and needs no special de-

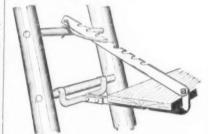


Fig. 1 .- New Ladder Bracket,

scription upon our part. The bracket is of such a character that it may be used in front of the ladder, as shown in Fig. 1, with a ladder hanging vertically, as above mentioned, or it may be used under a ladder when the same is inclined against a building. The bracket as constructed is substantial



Fig. 2.—Application of the Ladder Bracket to a Ladder Hung Vertically

in character, and the parts are such that an accident is practically impossible. Suffi-cient adjustment is provided to adapt it to ise under various circumstance

Torpedoes of the Austrian Navy.

At the time of the Austro-Italian war, in 1866, the Austrian Government made great efforts to put its ports in a state of defense against attacks of the Italian fleet. Torpedoes in large numbers were sunk, and all the commandants of these places were ordered to exercise the greatest vigilance.

The torpedoes were placed in several con-

centric lines, and were sunk to such a depth The threatened disturbance of the peace of Europe has led to an interesting inquiry face no signs of their presence could be distinct the distribution and consumption of wheat and corn in the United States and

the March remainder was 119,000,000 bushels. There has been a slightly freer use of wheat for bread, and a little of the poorer quality has been fed to stock. The amount on hand March 1, 1883, was 28.5 per cent. of the previous crop, or 143,000,000 bushels. In March, 1882, there was reported only a stock of 92,000,000 remaining from the small crop of 1881.

In a report from the Department of Agristock of 92,000,000 remaining from the small crop of 1881.

In a report from the Department of Agriculture on the cereal supply of Europe it is shown that the average supply of all the countries of that quarter of the globe is but 2.42 centals of wheat per head for all purposes; that France, Belgium, Great Britain and Italy are the only countries having a supply above the average, and that the average supply of all cereals is only 8.28 centals per head. Our own supply of wheat for bread and seed is nearly double that of Europe, and our supply of all cereals is usually three to four times as great as the European average. It should be explained, however, that maize with us supplies the

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H. D. SMITH & CO.,

Plantsville, Conn.,

MANUFACTURERS OF THE

BEST QUALITY CARRIAGE MAKERS' HARDWARE,

Manufacture the Largest Variety of Forged Carriage Irons, of Best Material and Workmanship.

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BLOOMS, SLABS AND BILLETS, Rolled and Hammered.

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FOR BOILER PLATE.

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For Nails, Wire, and Bridge Bars.

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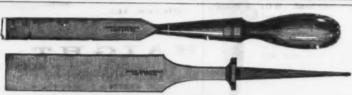


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English Letter.

(From Our Regular Correspondent.) LONDON, March 30, 1885.

THE SITUATION

is still one of uncertainty, tempered and flat-tened by the actualities of warfare on our tened by the actualities of warfare on our own part in the Soudan, and on the part of the French in China, while the complications with Russia on the frontier of Afghanistan are so formidable that war with that power is regarded as being almost inevitable.

As I have taken occasion to remark in a former letter, nobody in this country desires a war with Russia, but there can be no deal of devil "left in us, and if Russia persists in pursuing a course which clearly 'York being 2/@ 2/6 \(\mathbb{P} \) ton. Liverpool rates sists in pursuing a course which clearly threatens India, then we, as a nation, shall oppose her, and shall "fight it out on that line" as long as we have a little finger left to wriggle in the face of the foe. All the same, we modern Britishers do not regard war with favor, save in self defense, and the projection was as of late, with a very quiet ending of the superficient way to the same as of late, with a very quiet ending of the superficient way to the same as of late, with a very quiet ending of the superficient way to the same as of late, with a very quiet ending of the superficient way. majority of us are heartily sick of the "mili-tary operations which are not war" in Egypt, just as we hope that an amicable arrangement may be made with Russia even at the last moment. Our trade is in a very depressed condition in almost all its branches, and the ramifications of our commerce and shipping are such that we could not possibly engage in hostilities with any power without doing ourselves a great deal of harm. With Russia against us it is possible, also, that we should immediately feel the pinch in the shape of an advance in the price of bread-stuffs, seeing that, with Russian wheat sup-plies cut off, your clever manipulators would be pretty certain to run up prices, and would have every encouragement to corner us on this prime necessity of existence. Luckily, we are not now so dependent on Russia for wheat as we were in 1853-55, so that we need not fear that flour should again reach 6/ or 7/ P stone, as it did during the You will gather from this that matter

with us are not lively, yet as a faithful chronicler I am bound to say that the great military and naval preparations are giving a marked fillip to various branches of the iron and hardware trades. The Government are throwing away money with both hands, as the phrase goes, and are preparing for war on a most extensive scale should the emer on a most extensive scale should the emer gency unfortunately arise. For the Suakim-Berber line more pumps—English this time —have been ordered, pipes and tubes are being manufactured, and rails, sleepers, bolts and nuts, engines, rolling stock, sig-nals, lamps, tanks, cisterns, wire and sun-dries are being shipped in hot haste to the Red Sea. The ironclads and other naval requisites are being pushed on night and requisites are being pushed on night and day, rifles and ammunition, powder, bullets, cartridges, saddles and harness, knives, bayonets and all the paraphernalia of the land and naval services are being piled up in enormous quantities. So far we are benefited, and those who have obtained their shares of the orders are probably very well satisfied with the turn affairs have taken. It is also understood that the majority of our farmers favor a war with Russia. They did so well in 1853-55 that they look forward did so well in 1853-55 that they look forward to a repetition of those "good old times," and would like to see corn at fancy prices, so as to recoup themselves for some of the losses of the past few years. Certain specu-lators on the exchanges would also favor a war, either with Russia or any other country, simply because there would then be violent and rapid fluctuations, amid which gamblers might hope to make more money than is generally obtainable in the "piping times of peace." All this is deplorable, of course, but there is "much human natur" in most of us, and it is probable that few men are strong enough to remarks. "No. 1. No. 2. No. 2. No. 2. strong enough to remember "the greatest good of the greatest number" when self-interest leads in another direction.

THE IRON MARKET

has been very quiet this week, and there is exceedingly little that is new to note in connection with any branch of the trade. At Glasgow warrants have been devoid of animation, and have not undergone any variamation, and have not undergone any variations in value of moment, the closing price being 41/5 \$\mathbb{T}\$ ton. Scotch makers' brands are unchanged, and the market generally is dull, the statistical position being of a nature by no means calculated to encourage optimistic views. Stocks are rapidly growing, and will soon be on a par with those of a mean acc, while shipments are still me a poor in second hands, and 3d. (@ od. more from makers. The local consumption continues relatively small, and shipments are not above an average. Whitwell & Co., Stockton, have altered their prices for "Thornaby" hematites to 47/6 for No. 1 Bessemer and 45/6 for No. 3, both net cash on trucks at the works. On the West Coast hematites are fairly steady mixed lots in usual process. unchanged, and the general demand is also about the same as it has been of late, alquiet, albeit values are rather steadier.

land, as well as for shipbuilders, railways, land, as well as for supported responsible to the result of the ordinary branches of the iron trade there is nothing moving; indeed, some of the current reports from the large centers speak of increasing dullness and lessened occupation at many of the mills and forges. All quotations are quite nominal at recent figures. For old materials there is a rather better inquiry from the United States, and quarter in most cases. The Bessemer con-cerns are not quite so well engaged, but the producers of mild steel are all doing a considerable turnover. Steel rails are as of late, at £4. 15/ ? ton for ordinary heavy sections, and other weights, &c., pro rata. There is only a modest amount of new business are the steel of the steel ness moving, and much of that is for tramway and other light sorts

SCOTCH PIG IRON

is very quiet, and the speculators in warrants have no chance of making other than most nominal margins so long as the political situation remains so complicated. The bulls have tried to score by starting a rumor that a number of furnaces were to be blown out, but the device fell flat and no tangible result accrued. At present there are 92 furnaces in blast in Scotland (one having been stopped at Glengarnock, while the one damped down at Dalmellington has been redamped down at Damelington has been restarted), as against 93 a year ago. In Connal's stores there are 591,716 tons (an increase for the week of 1171 tons), compared with 594,490 tons this date 1884. Shipments to date are 23,321 tons, or about 19 per cent. behind, while the importations of Middlesboro' pig iron into Scotland have increased by 30,502 tons, or nearly 4.7 %, this creased by 30,592 tons, or nearly 47 %, this

Deliverable	alon	gsie	de	е.						No. 1.	No. 8.
Gartsherrie, a		gov	W.							51/8	46/6
Coltness,	6.6									54/6	50/€
Langloan,	0.6									54/	50/
Summerlee,	9.9									51/	46/
Calder.	6.0				ï	 				5/2/	46/6
Carnbroe.	6.6									48/6	46/
Clyde,	0.6									46/9	42/9
Monkland.	6.6									42/3	40/
Quarter.	4.6									41/6	89/6
Govan, at Broo	miela	W.								42/	40/
Shotts, at Leitl	à									51/	60/6
Carron, at Gra	ngem	out	th	1						52/6	47/
Kinneil, at Bo'r	1088									44/	48/
Glengarnock, a										48/6	43/
Eglinton.		16	4.54		•		•			48/	89/6
Dalmellington,		16				 		 		47/	48/

MIDDLESBORO' PIG IRON

remains very flat, and is especially so in view of the circumstance that a rupture with Russia would cause a serious and direct loss to the shipping trade of the North of England. The local consumption of pig iron is moderate only, although some of the ship-yards are becoming busier. For No. 3 34/ @ 34/3 is the quotation, and G. M. B. are:

No.	10	Foundry	37/6	Mottled 82/9 White 32/6
44	8	44	34/3	Refined Metal 50/ Kentledge 36/6
44	4	Forge	88/8	Cinder 81/
		TITLE A	THE WIND WA	DIG TRONS

	No. 1.	No. 2.	No. 8.
Cleator	45/6	45/3	45/
Lonsdale	44/9	44/8	48/9
Workington	44/6	44/	48/6
Lowther	44/6	44/	43/6
Distington	44/6	44/	48/0
Harrington	45/	44/6	44/
Solway	44/6	44/	48/6
Maryport		44/	48/6

In London the business is reported to be In London the business is reported to be fairly good and the market may be described as, on the whole, pretty steady. Bessemer and Siemens coke squares have been in special request, and a tolerably good business has resulted at 14/1 @ 14/3 for the latter and 13/9 @ 14/ for the former, both f.o.b. Liverpool. At Liverpool the best feature about the tin-plate market this week is that there has been a triffe more doing, and, what is more to the purpose as regard steadying and will soon be on a par with those of a year ago, while shipments are still on a poor scale as compared with those of the corresponding period of last year. At Middlesboro' pig iron is lethargic, and the present situation is in no way brightened by the outlook. For No. 3 the quotation is about 34/
Though things generally are no doubt extremely quiet, as is usual just before the tramely quiet, as is usual just before the boro pig not be provided by the out-situation is in no way brightened by the out-look. For No. 3 the quotation is about 34/ in second hands, and 3d. @ 6d. more from makers. The local consumption continues makers. The local consumption continues tremely quiet, as is usual just before the quarterly meetings, the tendency in this mar-ket is toward recovery. There has been a great absence of business in coke tins for some time past. Very many of the parcels offering time past. Very many of the parcels offering aby "hematites to 47/6 for No. I Bessemer and 45/6 for No. 3, both net cash on trucks at the works. On the West Coast hematites are fairly steady, mixed lots in usual proportions being about 44/ for prompts, and 44/6 (45/6) for three to six months' deliveries. The "Ulverston" brand, which is sold direct, is now quoted at 47/6, 46/6 and 44/6, less 2½, for Nos. 1, 2 and 3 Bessemer respectively, all free on trucks or f.o.b. at Ulverston. In other districts values are the truling figures. Of course if the good there would be a big business doing at once. But there are not many anxious sellers just yet, and very many makers have full order books, for short periods at any rate. Cokenches about not being yet known; 13/6 IC for common grade cokes, and 13/9 @ 14/6 IC for common grade cokes, and books, for short periods at any rate. Coketin wasters are in fair demand, but only very good brands fetch 13/@13/3 now. Some of the commoner sorts are selling though the close of the quarter has the natural effect of rendering both venders and buyers chary of moving on a large scale.

In heavy manufactured iron there is a week. There are numerous inquiries for the common of the comm In heavy manufactured from there is a fair turnover, with the exception of iron ship plates. A good deal of bridge, roofing, dockyard and general engineering work is in hand in different parts of the country, hand in different parts of the country, and the better sorts, being well-assorted specificate tolerably active on the orders of the home and other Governments. In fencing Bessemer are picked up with promptitude, wire there is no change to note the demand. home and other Governments. In fencing wire there is no change to note, the demand being poor, and prices are cut so fine that some of the makers are what is tersely termed "out of it." Galvanized iron is much, if any, change to report in charcoal m is much, if any, change to report in charcoal The and best charcoal tin plates, orders for which combination in the bolt and nut trade still are still scarce, while prices are pretty much attracts attention, and there is some com-

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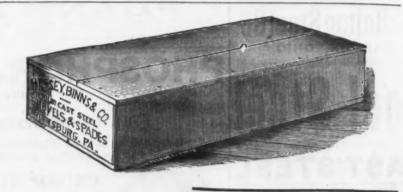
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Those interested in matters pertaining to the construction of submarine tunnels will find several features worthy of attention in a method recently brought out by Mr. Hay-den H. Hall, of New Hamburg, N. Y., and designed for laying submarine tunnels and tubes rapidly without the use of compressed air. The apparatus which Mr. Hall has patented consists in the main of a movable patented consists in the main or a movable caisson provided with a prow and means for attaching a draft chain or cable at one end, and at the opposite end with a neck adapted to receive the end of the tunnel tube, the caisson, further, being supplied with an air-shaft or hatchway extending above the surface of the water. Our engraving, showing a section and elevation, very clearly explains the arrangement adopted. The method of constructing a tunnel may be briefly described as follows.

If the banks of the river or other channels

to be tunneled are abrupt, and if the tunnel, on account of its hight, would obstruct navigation, it would be necessary to cut a litch or channel so as to sink the tunnel below the river bed, and also to cut a chan-nel inland to meet railroad track or other roadway. The caisson is then launched and roadway. The caisson is then launched and floated into the ditch, with the neck projecting inland, the lower edge of its opening on a lovel with the water. The first length of the tunnel is then constructed, consisting of six segments 10 feet long and 3 feet wide, bolted together by means of inner flanges, leaving the outer surface of the tunnel perfectly expect, which its end projecting a short dipper or clam-shell dredge may be used. The caisson is constructed of wrough iron or other suitable material, the bow being shaped like a double mold-board plow, which serves to level its way after the dredge. The opposite end has a stuffing-box to receive the tunnel. Through the bottom of the caisson are heavy anchoring piles which hold it in place while each section of "Engineers and Their Duties;" Chap. II,

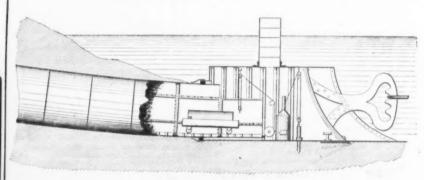
way interested in the progress of electrical science and in its various applications to the useful arts.

Steam-Making, or Boiler Practice, By Prof. Charles A. Smith. Size 6 x 9 inches, 195 pages. Published by the American Engineer.

Those in search of an interesting presenta-tion of modern boiler practice will find the above work to meet their requirements in a very satisfactory manner. The examples of boilers are taken from American practice where possible, and a large amount of valu able data has been collected from different sources and suitably classified. The book is divided into eight chapters, treating success ively of heat and the properties of steam; combustion; externally and internally fired stationary boilers; internally-fired portable, locomotive and marine boilers; the design, construction and strength of boilers; and an account of miscellaneous boilers and on choice of fittings and appurtenances. As few good works on boilers are now available, the book will prove a welcome source of in-formation in many quarters, and its recep-tion cannot be but favorable.

OCOMOTIVE ENGINE RUNNING AND MANAGEMENT. By Angus Sinclair. Size 5 x 734 inches, 390 pages. Published by John Wiley & Sons. Price, \$2.

We have read Mr. Sinclair's book with a good deal of interest, and those who will examine it will undoubtedly agree with us in pronouncing it as in every way a most desirable and valuable addition to the scant literature of the subject. Not only is the leaving the outer surface of the tunnel perfectly smooth, with its end projecting a short distance into the caisson. The next length is then put together inside the caisson, the caisson is drawn forward ready to receive the next length, and so on till the tunnel is completed. For excavating channels for tunnels and leveling river-beds the ordinary dipper or clam-shell dredge may be used. The caisson is constructed of wrought iron or other suitable material, the bow being shaped like a double mold-board plow, which serves to level its way after the dredge. The opposite end has a stuffing-box



Submarine Tunneling.

engine for operating the ropes or chains of a traveling crane which is used to raise and place in position the tube sections. The anchoring spiles can be raised or lowered by tackle suspended from the top of the caisson. A plate with a small screw shaft is hinged to the bottom of the front part of the caisson, as shown, and may be raised or depressed, so far the most interesting and valuable one of as to partially regulate the direction of travel its kind that we have yet had occasion to

Mr. Hall proposes to use a low-cost non-corrosive metal for his tunnel sections, the metal to be cast in specially arranged adjustable molds. As to cost of construction, he claims that a double railway tunnel, 18 feet feet in diameter, can be built at a lower cost per foot than an ordinary bridge for the same

ther informed, has been practically demonstrated, a double tunnel 1230 feet long for conveying water having been laid within seven weeks between Balmain and the North Shore, in Sydney Harbor, Australia.

NEW PUBLICATIONS.

ELECTRICITY AND THE ELECTRIC TELEGRAPH. By George B. Prescott. Two volumes. Size 594 x 85/2 inches. Vol. I, 602 pages; Vol. III, 1130 pages. Published by D. Appleton & Co. Price, \$5.

The sixth edition of the above work, which was issued a short time ago, has been revised and enlarged, making it of even greater value than heretofore to those engaged in value than heretofore to those engaged in the different branches of telegraphic service. Mr. Prescott's object has been to furnish a treatise on the subject of electricity and the telegraph which should present a comprehensive and accurate summary of the present advanced state of the science and art both in this country and abroad, and the two solvers as may well be insected are convolumes, as may well be imagined, are con-sequently of considerable interest both from historical and practical points of view. Special attention has been paid to the voluminous contributions of Germany, and a good deal of information heretofore for the greater part unknown to the English reader is thus part unknown to the English reader is thus supplied. The discoveries, inventions and practical improvements of the past few years, especially those relating to the duplex and quadruplex methods of transmission, and to the improved type-printing apparatus, are described and illustrated with a completeness commensurate with the great importance of the subject. The value of the descriptive portion of the work has furthermore been greatly increased by the introduction of numerous original illustrations, which have been freely employed whenever they could be made to serve a useful purpose in the elucidation of the text. In its present shape the work will be found of a good deal of value, not only to the professional telegrapher, but to all who are in any

tunnel is being put together. Hydraulic jacks are used to move the caisson forward. On the top of the caisson, as shown, is a ventilating tube which projects above the surface of the water. As the caisson is drawn forward into deep water, ballast is added in sufficient quantities to hold it firmly down in the channel, and as it proceeds to the opposite shore the ballast is gradually relieved. Within the caisson is an engine for operating the ropes or chains of a traveling crane which is used to raise and motives gave rise to several chapters on valve motion, and these will, without doubt, be highly appreciated. Everything that a locomotive engineer or fireman should know's so far as the engine and its connections are concerned, is included, and the book is by far the most interesting and valuable one of

Tunneling Under the Hudson River. By S. D. V. Burt. Size 9 x 11¾ inches, 70 pages. Published by John Wiley & Sons. Price, \$2.50.

Probably few of our readers have not heard of the Hudson River tunnel project, which was a matter of general interest for several years. The general plans, according to which a short length of the tunnel was built, were new, introducing novel methods of working, and Mr. Burr's detail descrip-tions of the different stages of the work, together with finely-executed working drawings, are thus well calculated to attract attention and well-merited, favorable com-Mr. Burr's opportunities for close and careful inspection were most favorable from almost the beginning of the enterprise, and his collection of matter is accordingly of much greater value than would otherwise have been the case. There are 27 plates, furnishing excellent illustrations which may be accepted as thoroughly reliable and exact, and which, in connection with the text, are of the greatest value, indicating what was contemplated, what has thus far been actually accomplished and showing the manner in which the various and numerous obstacles encountered were overcome.

HANDBOOK ON THE TEETH OF GEARS. By George B. Grant. Size 51/2 x 91/4 inches, 29 pages. Price,

Mr. Grant's little book treats of the form of the gear tooth, explaining the different curves in use, their theory, peculiar proper-ties, construction, &c. The epicycloidal form of tooth is treated of at some length, and its construction, defects and merits are discussed. Different forms of odontographs

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The Iron Age

Metallurgical Review.

New York, Thursday, April 16, 1885.

DAVID WILLIAMS JAMES C. BAYLES, Editor.

JOHN S. KING. Business Manager.

CHAS. KIRCHHOFF JR., Associate Editor.

assignee or purchaser of the business.

were also imitated he might restrain the use

the business; at least he cannot do this so as

word or symbol as a trade-mark is insepa-

rable from the right to make and sell the

commodity which it has been appropriated to

designate. It has been held within a few

months that the name selected as as a trade-

mark need not be the name of the actual

manufacturer of the goods to which it is

attached, for the mark may in course of

purchases the good-will. It has also been

decided that a trade-mark will pass under a

general assignment or conveyance of all the

assets and effects of a firm, though not spe-

to use it, while the assignee would obtain the

exclusive right. An assumed or fictitious

name may constitute a valid trade-mark

induce purchasers to believe that the article

is manufactured by some person bearing that

The best kind of a trade-mark, as is

specifies the name of the place where the

name or device. Thus, a certain coal had

last coal under the name of "Lochgelly Splint Coal." They were restrained from using the word "Lochgelly." The manu-facturers of certain compounds sold them

under the name of "Angostura Bitters,"

Angostura being the name of the place

where the bitters were made. This was

court, and the defendants were restrained

from the use of the word "Angostura."

injunction, was decided against them be-

which vitiated a trade-mark otherwise good.

gard to the right of employees or partners

in England, and it doubtless would be so de-

Some question has arisen recently in re-

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THE IRONMONGER and THE IRON AGE, Weekly

New Points Relative to Trade-marks.

There is no doubt that trade-marks are valuable properties and becoming more and more valuable every day. There are many large manufacturing companies and firms in the United States which expend thousands of dollars annually in defending their rights to trade-marks claimed by them. A wellknown manufacturer of starch, in New York, employs able counsel whose exclusive business it is to look after the trade-mark interests of the company. With the increase of population, wealth and purchasing power, articles which are by no means necessaries, as well as those which may be so regarded, attain to enormous sales, and the distinguishing mark or name by which such articles are known constitute in great part the value of one of its component parts, the article being term creditably filled the Presidential chair. the business.

Within the last two years there have been many cases decided in the courts which, while establishing few new principles of first importance, are interesting from the fact that they show the improvement of the law on this subject, and point out with great accuracy what constitutes and what does not constitute a good and valid trade-mark. In 1883 the English Parliament passed the a peculiar label, all together constitutes a Trade-marks act, which defines-a thing which unfortunately has not been attempted in this country-what a trade-mark may be. The provisions of the act are as follows

(a A name of an individual or firm printed, impressed or woven in some particular and distinct

(b) A written signature or copy of a written signature of the individual or firm applying for registration thereof as a trade-mark: or (c) A distinctive device, mark, brand, heading, label, ticket or fancy word not in common use, and there may be added to any one or more of these

particulars any letters, words or figures, or conbination of letters, words or figures, or any of

a white powder sold and used for polishing Therefore they are valid as trade metals. marks. The word "snowflake," as applied to crackers is a mere descriptive phrase, of Bitters" cannot be a good trade-mark, but being used in connection with bottles of a Marta. certain size, color, shape and material, and valid trade-mark, the imitation of which may be enjoined. It was recently decided in the case of Lorillard against the Drummond Tobacco Company that such a simple and ordinary device as a horseshoe alone cannot be claimed as a label, nor can one man appropriate as a trade-mark an ordinary and usual form of package and fashion of label, so as to exclude others from the use tory. of a similar article; the mere idea, repre-

contains the following clause: while this treaty exists, and in consequence the United States also guarantee, in the same manner, the rights of sovereignty and property which New Granada has and posses sses over the said terri-

at the present time, though an American have been protected lately, but the courts keeping open of the transit.

Legislature would probably modify some of have refused to protect the word "colonial." the provisions if called upon to regulate the It has been said that while the word "origistill true that a mere word in common usage the original inventor or manufacturer or descriptive of the quality or composition of their assignees have the right to use it.

the article cannot be made the subject of a A manufacturer who purchased of an intrade-mark. The English language cannot ventor the exclusive right to work and sell eign word of description, particularly if it is pulley" within a specified territory adopted well known. A fancy word, however, as a trade-mark the term "Taper Sleeve whether English or foreign, is allowable. A Pulley Works." Another manufacturer purrecent English case decides that a single chased the right to manufacture the same letter cannot be registered. But initials article within certain other territory, and to guard the transit and American property arranged in an artificial way, or even the assumed the same trade name as the other initials of a name, as "H. H. C." or "M. manufacturer. It was decided that he had C.," are good trade-marks. Every person is no right to assume the trade name and could entitled to use his own name or script signa- be restrained from using it. An interesting ture, and he can transfer this right to an case has been decided in regard to a patented article, where frames for sewing Neither he nor his assignee, however, can machines, in the form of the letter G, have prevent another person having the same been so extensively manufactured and sold Canal Company's property. name from using the name as a trade-mark by the inventor during the time they were on similar goods, though if an extra device protected by patents that the machines containing this feature came to be known in of the device. But the owner of a trade- the trade thereby. After the expiration of mark cannot transer it or the right to use it the patents the patentee cannot, by claiming for it except when a case arises like the to another person without also transferring such form or shape of frame as a trademark, prevent others from using such frames rectly injured, and the country is too imto give the assignee the right to restrain in sewing machines manufactured and sold others. The right to the exclusive use of a by them. The case of the Collins Company against Oliver Ames & Sons presents a fea-ture of great importance and value. Collins & Co. manufactured edge tools which they marked with the firm name as a trade-mark, and they soon acquired a reputation among the trade. The defendants manufactured 84, \$45,660,945. In one year, 1874, when shovels and marked them with the name 'Collins & Co.," and sent them to Austime become the property of the person who tralia. Collins & Co. had a market in Australia and were well known there, but they had never manufactured or sold shovels the import has been steadily on the increase. there or elsewhere. It was to be inferred Our domestic export during the first period that the defendants had put the name on of eight years named amounted to \$34,373,cifically designated—that is to say, the orig- the shovels to avail themselves of the repuinal owner would no longer have the right tation of Collins & Co. Collins & Co. sub- \$43,047,067. The last two fiscal years stood sequently reorganized as a corporation. This as follows: corporation were held to be entitled to an injunction against the defendants to restrain provided there is no attempt to deceive or to them from the further use of the name and to compel them to account for the profits.

To constitute an infringement of a good trade-mark it is not necessary that the imitation should be exact. Any colorable imishown by the late decisions, is that which tation is sufficient. Thus, where the trademark was "Stephen's Blue Black," printed article is made, or consists of a fanciful on a label in white capitals and large type, as "Lochgelly Coal." There was another seam of coal in the same locality, and the proprietors of this same boards, and the it was an infringement to sell an article Any imitation which strikes the eye in such proprietors of this seam began to sell this a manner as to suggest the appearance of the trade-mark, and calculated to deceive ordinary persons who do not observe details carefully, but trust to general effects, will be restrained by injunction.

Our Trade with Colombia.

held to be a good trade-mark in an English The revolution which has been going on in Colombia since the beginning of the year, and is not yet ended, has a double interest for the people of this country; it interrupts land, in which the same parties owning this the steadily-growing trade we have been trade-mark were endeavoring to obtain an carrying on with Colombia, has endangered one of our highways between the Atlantic cause of misrepresentations in the label, and Pacific, and inflicted heavy losses on American citizens, through the burning of Aspinwall, founded 35 years ago by Howland, Aspinwall & Co., preparatory to the who leave the firm and set up a separate building of the Panama Railroad, now the business of their own to use the phrase,
"Late with the firm of ——." It is decided The Republic referred to was former

The Republic referred to was formerly alled New Granada, which, as the result cieed here, that the old firm cannot restrain of a revolution, was transformed into the or prevent this use. But in one case the United States of Colombia, the new Constitusign and letter-heads contained the name of tion dating from May 8, 1863. The confedthe new concern in very small letters, followed by the phrase, "from Thresher & Federal Union elects its President, each Glenny," the word "from" being also very State elects its own President, four of them finely printed, but the words "Thresher & for four years, and five for two years. By Glenny" very prominent and striking. This this arrangement the chances of revolution was regarded as evincing an intent to de- are multiplied, and frequently the Federal ceive, and was therefore restrained by in- troops have been in conflict with State but "Excelsior" can. The mere name of a been confined to the deposition of State Presiproduct cannot be appropriated, but the dents, but has for its aim the outing from words "silicon," and "electro-silicon" are power of the Federal Executive, President R. not in a scientific sense descriptive of the Nunez, whose term of office commenced on article thus designated, although silicon is April 1, 1884, and who during a former all these advantages, the country is period-He belongs to the Conservative party and is considered a safe man, although the party in States, so that it is almost a hopeless case. arms against him, the Liberals, allege that he is under church influence. Up to April 8 appearance or quality, and so cannot be claimed. The name "Hostetter's Stomach tered the rebellion everywhere except in the sylvania. ports of Panama, Sabanilla and Santa

In 1846 the United States made a treaty

the river having resumed at the 3 cent rate.

fare in those regions are injurious to commerce and traffic at large, and as the crippled to make that country pay heavy mus may be necessary till a Government be established strong enough and stable enough against revolutionary surprises, which, in the case of Colon-Aspinwall, involved a wholesale destruction of houses, wharves and goods to the amount of some \$10,000,000. and protect French citizens and the Panama

The manifest inability to govern themselves in peace, which so many of our Spanish-American neighbors have given proof of. is a great nuisance, yet there is no remedy present one, in which our interests are diportant to be left at the mercy of political highwaymen. A few statistics will show the magnitude of our trade with Colombia direct. The total import of Colombian products into the United States during the eight fiscal years, 1869-76, was \$51,725, 534, and during the following eight years, 1877the price of coffee was high, our import thence amounted to \$12,284,063. Latterly nearly all Colombian products have sold low; hence the amount fell off, but in bulk 809; during the last eight years it rose to

\$5,171.455 8,891,848 The general trade movement in Colombia

with foreign countries by land and sea will best show how large our share in it really is: Export. \$14,857,176 18,514,116 15,836,94 Import. \$11,504,028

The population of the Republic is in round numbers 3,000,000, including 50,000 Indians. The capitals of States are Panama, 18,378 inhabitants; Santa Marta, 3500; Cartagena, 7800; Socorro, 16,000; Medellin, 20,000 Tunja, 5471; Bogota (also the Federal capital), 95,000; Ibague, 10,346, and Popayan, The income of the Federal Government in

1882-83 was \$5,964,296, and the outlay \$5,066,044. The foreign debt on December 31, 1883, was \$9,570,500, and the home debt \$10,340,883; total national indebtedness, \$19,911,383. The finances of the Govern ment would have been more prosperous long ago if there had not been so many bills for damages to be settled for property taken from foreigners during revolutionary war fare, in the shape of forced loans, &c. The shipping that entered Colombian ports in 1882-83 consisted of 923 sailing vessels, measuring together 40,462 tons, and 588 steamers of a joint tonnage of 668,713. Unstable politics frightening away investments by foreign capitalists, there are, inclusive of the Panama Railroad, only 142 miles of railway in operation in a country measuring 586,600 square miles, about three times the size of Spain, whereas the latter, the mother country, as mountainous as Colombia, has 7770 miles of railway in operation and building. The post office forwarded in 1882-83 only 650,000 letters. Of telegraphs lines there are 2376 miles, and they forwarded 288,876 messages in 1882-83. There are few Spanish-American countries possessing the resources and unrivaled geographical position of Colombia. The province or State of junction.

Words of quality or description, as is well from becoming general. Thus the State of known, cannot be made the subject of a known, cannot be made the subject of a Panama has during the first three months of the Pacific. Bogota, the capital, has about the same delightful climate as Mexico and "nourishing," cannot be claimed, The present revolution has, however, not Caracas, and the Magdalena is one of the most important and best navigable rivers in South America. The Isthmus of Panama gives Colombia an international importance and generals and the scum of neighboring

Central America and the Colombian por- out of this coal on the recent rise left a tion of that part of our continent are becom- large number of empty coal boats and barges subject. The former leading rules of law on nal" is in common usage, yet, as taken in ing so important, commercially and strategic to be filled, and, in anticipation of the rise trade-marks have not been changed. It is connection with any particular article, only ally, that the action of our Government is a that can be pretty surely counted on for the matter of the greatest interest; the ever- last of April or the first of May, the operatrecurring revolutionary troubles and war- ors deem it best to load their boats at the 3 cent rate. What they will do when the boats are loaded is another question, but it be appropriated in that way, nor can a for- a patented device called the "taper sleeve finances of Colombia, for example, are too is evident that the labor question in the coal mines of the Monongahela River is by no damages, a prolonged occupation of the isth- means settled. As soon as an opportunity offers the probability is that a lower rate of mining will be demanded.

The action taken by the railroad miners at their convention some days ago, to which we referred, in demanding 4 cents a bushel from the mines that were now paying 3 cents, did not seem to meet with the ready acceptance anticipated from the miners at those pits sider themselves called upon to interfere that were at work, they refusing to demand 4 cents, and the indications now are that the railroad miners will resume work at 21/2 cents, or 1/2 cent less than the work on the river. Indeed, there should be this difference always, as work on the river is uncertain and irregular, whereas work on the railroads is generally continuous, or, at least, much more so than on the river. Another convention was called for this week. In the call for the convention the officers

It has been suggested to us by the miners of several pits that a conference committee be ap-pointed to confer with the operators, with a view to settling the present difficulty. It is carnestly desired that a full representation be pr your ablest and best men, instructed in the matter

This indicates a weakening on the part of the men. The probability is that they will offer as a compromise to the operators 3 cent digging for local domestic consumption and 21/2 cent digging for coal for manufacturing purposes and for points outside of Pittsburgh with the scale. It should be understood that the river mines were not interested in the recent arbitration, the parties to that being only the railroad operators and

Privateering.

Whatever may be the final outcome of Anglo-Russian war menace, there seems to be little probability that more "Alabamas" will be let loose to prey on maritime commerce. The nations which connive at depredations of this character pay too dearly for their compliance, as was seen in the recent experience of Great Britain, when she paid \$15,000,000 under the Geneva award. Besides, Russia is precluded by the convention of Paris from issuing letters-of-marque, unless she is prepared to break through all the trammels of international law. During the past week rumors were freely circulated that Russian agents were secretly negotiating for the purchase of the steamers San Pablo and San Pedro, built for service on the Pacific Coast, and that overtures were likely to be made for steamers connected with various American lines plying from the port of New York. The supposition was that these steamers were intended to harass British trade, but inquiry on the Maritime Exchange failed to secure any facts giving a color of truth to these stories. Ex-Secretary Evarts, who was interviewed

with reference to this subject, is represented as having said that "the Geneva Conference simply took into consideration the Alabama "claims, and no rule was established con-"cerning privateering." "That matter," he added, "was considered during the conference held in Paris in 1856," and inferentially Mr. Evarts would have it understood that the Alabama claims for damages against the British Government, on account of injuries inflicted by privateers fitted out in British ports, involved no precedent. John Bigelow, ex-Minister to France, while not aware of the existence of any obligations of neutrality stronger than those which were recognized prior to our civil war, admitted that "in presenting to the English Government a bill for damages sustained by our commerce in consequence of England's violation of neutrality during our civil war and in receiving which we allowed ourselves to declare to be a satisfaction for those damages, we have laid ourselves open to have a similar 'bill presented to us for the damage which might result to Russian or English commerce if we shall permit our ports to be made the shelter and nurseries of privateers." According to another authority quoted, the United States Government, by accepting the Geneva settlement, has bound "a precedent which binds not even From a cursory examination of a very im-

portant question, which is liable to becom The striking miners in the Monongahela prominent within a short time, it would district in Western Pennsylvania have won appear that the United States are doubly with New Granada, ratified in 1848, which the contest, most, if not all, of the mines on bound by obligations of neutrality as regards privateering in case of war between England The United States guarantee, positively and efficaciously, to New Granada the perfect neutrality of the Isthmus of Panama, with the view that the free transit from the one to the other sea may not be interrupted or embarrassed in any future time.

The strike, however, still continues at the calcium and Russia. Previously existing treaty stipulations are defined and a precedent eat work at the 3 cent rate, others at 2½ tablished by our participation in and acceptance of the Geneva award, even though pay more than 21/2 cents. This condition of the question of privateering as an inter things is rather anomalous, and demands national issue was not presented, much less same explanation. It is well known that considered, in the deliberations at Geneva. most of the coal mined on the Monongahela Our position of neutrality not being ques-No sconer was our Government informed River is sent down the Ohio and Mississippi tioned, the single point will be, in the consented by a figure on an article sold for the of what had happened at Colon-Aspinwall as far as New Orleans. The trade is some- tingency assumed, the practicabilty of repolishing purposes, that it will make things and Panama, early in April, than additional what uncertain, and shippers must take pressing privateering along our extensive bright enough to be used as mirrors cannot be the subject of a trade-mark. The words with a respectable force of mariners on their coal barges out. When the strike inability in reference to the Alabama, and Although this is an English statute, it states substantially the condition of our law states substantially s ready for the breaking of the ice. The going filibusters,

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An Unfortunate Iron Plant.

The recent sale of the blast furnace and Company, of Allegheny City, Pa., which was referred to in our department of indushi-tory of the property. The statement is made that this plant has been directly connected with more financial failures and busi-1 ess embarrassments than any other property in Western Pennsylvania. Be this as rival, the fact indicates a tendency to go it may, it seems that the property has certainly been ill-fated. Quite as well situated and possessing the same advantages as any of the other Allegheny County furnaces, the plant has never yet arisen to the dignity of permanent success. The old Superior Furnaces, the commencement of the plant, were built in 1862-63, and were among the p oneers of the blast-furnace industry in Pittsburgh, being preceded only by Clinton Furnace, of Graff, Bennett & Co., and the E iza Furnaces, of Jones & Laughlins, which p'ants were built, respectively, three years a d one year before. All five furnaces were of the same size, having 45-foot stacks and 12-foot boshes. In 1865 the owners of the furnaces, who took the name of the Superpr Ir n Company, built a rolling mill especially designed to roll rails, and it may be noted that the product of the mill in this line had a very good reputation. The Superior Iron Company did not long operate their property, but leased the furnaces to Ritchie, Herron & Co., and the mill to an o senization which took the name of Harburgh, Mathias & Owens. The furnaces were not long in the hands of Ritchie, Heron & Co., as d were afterward operated by other lessees, finally passing into the hands i Harbaugh, Mathias & Owens, and making their last blast in 1874. Then in 1875 came the heavy failure of Harbaugh, Mathias & Owens, and the property was bought district. Six of the seven districts are west in by the creditors for \$600,000. These formed, after a time, the Manchester Iron and Steel Company, and leased the mill to Andrew Kloman in 1878. He altered the mill and adapted it to the manufacture nati district; the fourth, Chicago and Milof structural iron, as the day of iron rails had practically come to an end. The mill was operated on structural material by Mr. Shenango valleys and Northern Ohio. At Kloman until his death, when his sons stepped in and carried on the work. The two old furnaces, now become very old- delegates elected was as follows: fashioned and out of date, were meanwhile crumbling away rapidly. About the year 1882, the internal strife which has been going on among the various creditors, who, as related, accidentally became fellow stockholders in the Manchester Iron and Steel C mpany, came to a head, and the New York division of the company were enabled to assert their supremacy. This they did by negotiating a loan with the Metropolitan Trust Company, of this city, and utilizing the funds thus obtained in tearing down the time-worn furnaces at Allegheny City and erecting on their site a large furnace embodying all the improvements of the day, as did its predecessors when they were built. The Manchester Iron and Steel Company had, however, barely gotten their furnace, which they named the Edith, into good working had but 1468 members, leaving 20,532 nonorder, when they themselves became involved in embarrassment and were compelled to make assignment. About the same by the Pittsburgh papers, calls in question time the Kloman Bros., who, as trustees of this statement, and asserts that the membertheir father's estate, had been operating the rolling mill, found themselves in financial given in the table, but, unless he can show straits and also failed. Thus again the that the laws of the union are not observed whole plant was idle from the same cause.

At this juncture the assignee, Mr. Henry Stanton, of this city, showed his fitness for in excess of 300, the membership of the his position in an unexpected manner. The Amalgamated Association in the first distoo confident authorities of the Marchester trict, which is Pittsburgh, cannot exceed Company had invested in several thousands tons of ore, which lay a dead weight upon the affairs of the company. Mr. Stanton an a sociation that at one time claimed went to Pittsburgh, took charge of the through its officers to have a membership of Edith, put her in blast, and worked up the 65,000. whole amount of ore into pig iron, which could be much more easily disposed of, and thus materially lightened the load under which the company were laboring. But all endeavors were ineffectual; affairs were bound to take their own course, and the property, which the owners had acquired as creditors, has now passed into the hands of the creditors' creditors. It is stated that the last named parties intend to put both the mill and furnace in repair, and, when prices will warrant such action, will put them both into operation. It is certainly to be hoped that they will be able to "down" the relentless fate which has seemed to rule over this plant, and that a third company of creditors will not appear and take charge of it.

The beam trade has attracted some attent on recently, and its supposed prosperity, comparatively speaking, has been an incentive to works producing other manufactures of iron and steel to enter into the business. Not long ago Messrs. Jones & Laughlins made their appearance in the markets, and notably in Chicago, and for a while competition was sharp. They joined the association, however, and the only echo of the struggle was the movement recently initiated with considerable show of vigor by the Cornells, of this city, who had made a contract with the firm mentioned, before they joined the association, for quite a large lot of beams. The action referred to was the public announcement on the part of the Cornells that they were ready to sell beams to consumers at prices, not specified, below the rate agreed upon by the association, or 3 cents on dock in New York. We have

been told that this step was taken from the laudable motive of enabling a long suffering public to put up fire-proof structures. There rolling mill of the Manchester Iron and Steel are now in the country nine works making or ready to make iron and steel beams. A tenth, at Chicago, will soon be ready to enter trial news, calls to mind the checkered the market, and presumably will go through the experience of the latest additions to the number of those in the association. While it is not likely that the latter will be seriously disturbed by the advent of this new into the business, growing out of the idea that it is a "good thing." We have reasons for believing that others are casting wistful eyes in the same direction. The fact is that the beam trade is an expensive one to handle. In orders to meet requirements a pretty heavy stock must be carried, and there is good deal of extra cost growing out of the necessity of cutting to lengths ordered. In the aggregate the capacity of the works now equipped for rolling beams is greatly in exess of the demand, and should business not improve there is the danger that unrestricted ompetition, because of the starting of a number of new works, would quickly drive values to an unremunerative basis. As it is, a pretty sharp struggle for the business of the large tidewater towns is being made by the representatives of foreign makers.

The Strength of the Amalgamated Association.

The list of delegates to the scale convention of the Amalgamated Association, to be held in Pittsburgh, Saturday of this week, gives some indication as to its membership in the West. Under the by-laws of the Amalgamated Association each district is entitled to send one delegate to the scale convention for every 300 members in the of the Allegheny Mountains. The first district includes Pittsburgh and the immediate vicinity; the second what is known as the Wheeling district; the third, the Cincinwaukee; the fifth, Terre Haute and St. Louis, and the sixth, the Mahoning and the several conventions and in the various districts on Saturday, the 4th, the number of

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On this basis the membership of the Amalgamated Association west of the Allegheny Mountains is 66co. There has been consid erable discussion recently in the Pittsburgh papers as to the actual membership of the association. The Pittsburgh Dispatch gave a list of the mills in Pittsburgh and vicinity, together with the number of union men in each mill, which showed a total of 22,000 iron and steel workers, among whom it was claimed that the Amalgamated Association union workmen. Mr. Martin, the secretary of the Amalgamated Association, as reported ship at certain mills is in excess of that and that the number of members necessary to send a delegate to the scale convention is in excess of 300, the membership of the Amalgamated Association in the first district, which is Pittsburgh, cannot exceed 3000, and the entire membership in the West 6600. This is certainly a great falling off in an association that at one time claimed

The secession of the nailers from the Amalgamated Association is an accomplished fact, a new organization, known as the United Nailers of America, having been formed at Wheeling a few days since. This 6 x 6 inch ingots have been cast. The question of casting is one of exceptional imporwest of the Allegheny Mountains. The tance to the Clapp Griffiths process. It is the Amalgamated Association are making the intention to experiment with top casting, best of it, and are charging that those who best of it, and are charging that those who have dropped out are principally of that class who have no further use for the society except for personal ends. It was our impression that all of the members of the society were mem bers for personal ends. It may be possible that this organization has latent in it an amount of patriotism and high principle for which we have never given it credit, but, judging by its action, the only objects it has erved have been personal ends-that is, to and none whatever of future injury to their

At a meeting held in the Metropolitan Hotel, New York, March 14, the representatives of a syndicate which has secured ontrol of four groups of Cuban ores, said to extremely valuable for steel and foundry urposes, decided to begin mining and ship ng ores to this country as soon as wharves nd railroad communication with the mines an be built. The promoters of the enter rise are prominent iron men and large con-

Three firms in New York City have cently sent to Central America more than 00,000 cartridges.

The New Clapp-Griffiths Plant at Pittsburgh.

In a few lines we announced last week large number interested in various branches of the manufacture of iron and steel, a rep-Messrs. Anderson, of the Tredegar Company, Richmond, Va We have given a full illustrated description of the plant on a former occasion, to which nothing need be added now. It should be stated, however, that the general arrangment adopted is the outgrowth of local circumstances and of thistory of the plant. As will be noted by referring to the drawings published in The hon Age of March 12, the converters are placed a considerable hight above the ground, which, while it gives facilities for casting, has certain drawback on the hydraulic ram which raises into the place newly-lined bottoms for the converter. the hydraulic ram which raises into the place newly-lined bottoms for the converter. A very neat design has been made by Mr. A very neat design has been made by Mr. A very neat design has been made by Mr. A good deal of significance is attached to this fact, since it indicates that iron mills equipped with trains of fair strength may use them for rolling the ingots or slabs or other shapes they may desire to work. It means that it does not follow that a change steam hammer. In this manner the bottom need only be lifted a few inches and the whole of the converter is solid. In this new design the converter will be allowed to blow against a wrought-iron shield. Some trouble and delay in starting the new plant was experienced through the fact that the pipe for the hydraulic cranes and lifts had been laid in partly frozen ground and leaked in some places. Then, too, the drying of the bottoms was not as thorough as it should be. With one of the converters, during our visit, the water was dripping out of the bottom while the blow was progressing. The principal reason, however, why the plant is not as yet coming up to ordinary of the one works will be in a position to make a series. The principal reason, however, why the plant is not as yet coming up to ordinary work is that the melting capacity of the one cupola provided is not, by far, able to supply both of the converters. A second cupola has been ordered and will probably be in a short time.

Pittaburgh on Tuesday last.

We understand that in a few weeks the works will be in a position to make a series of tests with irons from different localities and of different grades, and it is likely that at the same time further experiments will be carried out to ascertain how far it is posplace in a short time.

Meanwhile the plant is working single

turn, and its capacity to produce quantity can only be gauged in a general way from the duration of the blows, and the time required for other accessory operations. At the time of our visit one of the converters was being made ready for work; the other was running with a new bottom. The iron, which was Bessemer stock, was tapped from the cupola into the traveling ladle and poured into the converter. It has been suggested that oxidation of a favorable character begins even while this pouring is going on. As soon as the metal rises above the tuyeres the blastgauge showed a jump of 7 to 8 pounds pressure. At the first blow witnessed, the smoke of burning iron at once made its ap pearance, the color and character of the pearance, the color and character of the flame remaining the same for the first seven minutes, when it gradually changed to a brilliant 'white flame, accompanied by the ejection of cinder from the converter and a flow of slag from the cinder notch. This period, we are informed, sets in from four to seven minutes after the beginning of the blow. Eleven minutes after the beginning of the blow. minutes after the beginning of the blow the taphole was opened, the tuyeres being kept open by closing the main blast valve and opening a valve admitting blast to a "passover," a pipe of smaller diameter connecting the parts of the main blast pipe in from and behind the main valve. This reduces the pressure to 2½ pounds. The original plus arrangement has been apparently a second of the pressure to 2½ pounds. soaked in oil, the office of which is to produce a sufficient agitation of the metal to aid in expelling occluded gases. While the steel is flowing the needed quantity, about .75 per cent. of 85 per cent. ferromanganese—previously broken into small pieces and preheated over an open fire—is added. At present bottom assting is recorded to the inpresent bottom casting is resorted to, the ingots standing in groups of five on an ingot The usual size is 8 x 7 inches, though car. avoid the drawbacks of casting under a heavy head of the ordinary method, and do away with the heavy percentage of sprues now made with the bottom casting method. At the time of our visit the charge of iron

was about 3750 pounds. There appeared, however, to be some variation from this, since in one or two blows practically no cin-der flowed from the notch, which would appear to indicate that the level of the bath was lower. It would be a question of some interest to determine whether the fact that scure the highest wages possible with the the cinder was not got rid of in this way ast consideration of the conditions of trade, has any appreciable effect upon the elimination of the silicon, which is conceded to be the secret of the success of the method in dealing with high phosphorus metal and in imparting to steel from ordinary stock the high quality established. After the blow has been completed, the tuyeres are cleaned and the vessel is ready for another opera-tion. The length of time required for blowing proper varies from 10 to 15 minutes. During our visit two blows were made in one hour with one converter, which was, however, idle part of the time. Running on 2 gross-ton charges, for which the converters were designed, the capacity of the plant would be from 65 to 70 tons per 10-

hour shift per converter.

inches. All the repairs called for was ment that promise a solution of the ordnance the putting in of a new set of tuy-problem. * * * That the Ordnance Dethe putting in of a new set of tuy-eres and patching the damaged parts near them. The balance of the bottom was In a few lines we announced last week that the new Clapp-Griffiths plant at the works of Messrs. Oliver Brothers & Phillips, in Pittsburgh, had begun to work. Like a large number interested in various branches of the works of the works. of the manufacture of iron and steel, a representative of The Iron Age had been patiently waiting for that event, in order to watch the operations of a process which has made such a sensation. On Thursday last a party visted the mill, among which were Senators Morrell, of Vermont, and Plumb, of Kansas; Mr. T. J. Peters, of the Brierfield Coal and Iron Company, Alabama; General Powel, of Belleville, Ill.; Frank Witherbee, of Crown Point, N. Y., and Messrs. Anderson, of the Tredegar Company, Richmond, Va We have given a full illustrated description of the plant on a forbass with the service of the plant on a forbass with the service of the plant on a forbass with the plant of the plant of the plant on a forbass with the plant of the plant on a forbass with the plant of the plant of the plant on a forbass with the plant of the plant ties for exchanging a new for an old bottom are very good, the number of connections to

inches above the ground. The stationary body of the converter rests on four legs, means that it does not follow that a change body of the converter rests on four legs, means that it does not follow that a change similar in general design to those of a costing say, \$40,000, which, after all, would costing, say, \$40,000, which, after all, would converted the same stationary to the same sta be only temporarily employed. Another point which is strongly illustrated by the working of the mild low-silicon steel in the rolling mill is its welding power. Tops of ingots which would be generally cut off come out exceedingly well under the rolls, and it has been noted that in some instances where

be carried out to ascertain how far it is possible to go in the direction of high phos-phorus. It may be again stated in this connection that none of the gentlemen connected with the development of the process have claimed, or do now assert, that the highphosphorus steel thus far produced is as good as the metal which can be made from pure stock. They do insist, however, that it is admirably adapted to a great variety of purposes for which steel could not be used if starting from the same cheap raw material as the wrought iron.

As yet, we are informed, no basis has been as yet, we are informed, no basis has been settled upon for the granting of licenses to build plants. Some of the plans originally considered, and referred to in newspapers in some instances, have been abandoned. It is certain that, so far as the mechanical de-tails of the Clapp-Griffiths plant are concerned, a great step in advance has been made over the crude first arrangements in England. In a few weeks the evidence of England. what can be done by continuous work will be at hand, when we shall again refer to the

WASHINGTON NEWS.

(From Our Special Correspondent.)

WASHINGTON, D. C., April 14, 1885. Attorney-General Garland has transmitted to the Secretary of the Treasury his reply to the interrogatories of the department in ref-erence to the status of the steel-bloom cases, as affected by the decision of the United States courts, and the appeal of his prede-cessor to the Supreme Court of the United cessor to the Supreme Court of the United States on a writ of error. As already said in this correspondence, the appeal was dismissed, thus leaving the duty as fixed by the courts at 30 per cent. ad valorem, instead of 45 per cent. ad valorem, as previouly assessed by the department. Attorney-General Garland gives the opinion that the dismission of the second support of t missal of the appeal was on the merits of the case, and not upon a mere defect in the record. This, therefore, settles all the cases dependent upon this decision of the court.

A statement has been prepared giving a list of importers benefited by this opinion and decision. The Commissioner of Customs will make up the accounts showing the exess of duty paid, it being the difference between 30 and 45 per cent. ad valorem in favor of the importer, and will submit them to the auditor and comptroller for settlement. The aggregate amount to be refunded will over \$200,000, taken upon a general estimate.

THE TARIFF IN EUROPE.

The economic crisis in Europe and the warlike outlook is the subject of interesting reports which are being carefully collated, and which will be issued for general information. The claims of the agricultural dis-tricts of Europe for protection are being raised also by those interested in manufac-turing industries. Secretary Manning is giving close attention to this question as it presents itself in European countries, in order to have the benefit of the views of the publicists of the Old World, as well as the practical results of labor and industrial agitations in that part of the globe.

THE ORDNANCE QUESTION.

A powerful movement is on foot to effect

problem. * * * That the Ordnance Deproblem. * * * That the Ordnance Department of the army can be entirely abelished with great advantages as to economy and without detriment to the good of the order of the detries now performed by office the control of the detries now performed by office the control of the detries now performed by office the control of the detries now performed by office the control of the detries now performed by office the control of the control o service. The duties now performed by officers of that corps could be performed by officers detailed from the artillery service. under the direction of a chief stationed at Washington. In this manner the whole ex pense of the ordnance establishment would be saved, and artillery officers, who have not only scientific training, but practical experience, would have a voice in the selection of the guns and ammunition they are required to use.

The indecision of the ordnance officers as the best patterns has done much to interfere with the securement of proper ap propriations for experiments in i proved guns. In a statement to the Senate Select Committee on Ordnance General Benet

"To return to the matter of steel guns. I presume that to make one with binds of steel and another wrapped with wire would probably take me at least two years. If we succeeded we could go on making steel guns of that caliber, and at the same time take a step further and try a 10-inch gun; that or that canner, and at the same time sake a step further and try a 10-inch gun; that would take a year or two more. Then, if we were successful, we could go to a 12-inch gun, which, of course, would require increased plant and heavier hammers. say, if we had the means of going on, that in the course of eight or ten years we ought to have the requisite plant in this country to make guns of any size we might require; but we have not got it now; we have barely got heavy enough hammers for the smaller caliber of gune, such as 6-inch and 8-inch, and at several of our best establishments a steel ingot cast at one place has to be sent to another place to be forged. Steel-making of a quality suitable for guns has not yet progressed beyond the experimental stage. As to giving an order for and giving the money to make 50 steel guns, we cannot do it. We have to commence at the very beginning and learn how to make them. Our people here have got to learn how to produce the metal."

The Committee on the Investigation of the

Steel-Producing Capacity of the United S'a ex will be ready to report to the next C ngrees. CUSTOMS DECISIONS.

The following is a synopsis of surdry decisions rendered by the Treasury Department in customs cases during the past week, full copies of which will appear in the monthly digest :

"A model of the steamer Umbria, showing the latest improvements in the art of shipbuilding, is exempt from duty under the provision in the free list of the act of 1883 for 'models of invention and other improve-ments in the arts,' it not being a model which could be fitted for use. Gold pens are dutiable at the rate of 12 c nts per gross, under the provision in Schedule C. graph 208, for metallic pens. Metal and cotton cord, consisting of a core of cotton threads inclosed in a flexible metal covering. is dutiable, under Decision 6547, and T. new, 427, at 25 per cent. ad valorem. The rule laid down in Decision 2934, that collections of antiquity, to be admitted free of duty, must be productions of a period proof to the mediaeval period, is no longer to be considered in force, but each case is to be judged upon its merits as it may arise.

Low-Silicon Bessemer Steel.

To the Editor of The Iron Age .- DEAR SIR : To the Editor of The Iron Age.—DEAR SIR: In the numerous published articles on the Clapp & Griffiths process, it is claimed that by their peculiar mode of manipulation they are able to eliminate the silicon much more thoroughly than in the regular Bessemer process, and thereby produce a superior quality of steel. It may interest s me of our readers to know that by the observance of proper precautions and careful blowing the regular Bessemer process will prod co steel lower in silicon and quite as regular as is claimed by the advocates of the Clap, & Griffiths process. In our practice we find the complete elimination of silicon to the principally dependent on the temperature of the "heat;" when this is properly regula el

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We find no difficulty in keeping the silic n in our low-carbon steel below .01, and in 12 to 15 carbon steel below .02. Finally, in order to verify our determination of silic " portions of the drillings from blow 328 were sent to Booth, Garrett & Blair, and A. S. McCreath, who report as follows

Booth, Garrett & Blair, silicon...... McCreath, silicon..... E. F. WOOD, Chemist.

Homestead, Pa., April 8, 180

Obituary.

WILLIAM HARSON.

Mr. William Harson, a prominent enneer and inventor, who lived at Greenpoint, Long Island, died Tuesday of paralysis, being in his 73d year. He was the original a thorough reorganization of the Ordnance inventor of the compressed air rock dull, Department of the army. During the For-which was used for the first time in drilling tieth Congress an effort was made to abolish the Hoosac Tunnel. For a number of years this department, and the project went so far he was connected with the Novelty Icon as to receive the recommendation of a joint Works in the capacity of master mechanic, One of the bottoms which had been recently changed had stood 22 blows. An eximation of its condition showed that in reality the wear had been confined to a ring at the tuyeres of about 3 to 4 accorded to all devices offered to the Govern-

THE WEEK.

The London Shipping Gazette complains that overproduction of tonnage "is still in full swing, for the new vessels which are the havoc caused by foreign war, together with the demands for transportation, may soon relieve the plethora.

A Sheffield (England) paper describes steel stern frame recently made by Wm. Jessop & Sons for a twin-screw steamer building at Belfast. The total length of the frame is 21 feet, the breadth of the bottom 17 feet and 10 feet across. This is the largest stern frame in area that has ever been made. It weighs 13 tons, and it was cast solid in one piece in crucible steel.

About a third of the way from the bottom two large bosses project 5 feet on each side, so that altogether the frame was about as awkward a piece of mechanism to carry on a railway as was ever put on to a truck. It was delivered to the Midland Company on Sunday, March 15, that day being selected as the one on which the least inconvenience would be caused to the traffic.

A powerful ironclad will be built in England for the Chilean Government, to replace two torpedo rams sold to the British Govern-

About 600 men are employed in cutting a tunnel I mile in length through Tuscarora Mountain, Fulton County, Pa., for Vander bilt's new Southern Pennsylvania Railroad.

Fifty or more puddlers at Pittsburgh are about leaving for the West, alleging that the new steel process has ruined their occupa-tion, and 100 have left for iron mills in New

In some provinces of Brazil iron ore is used in large quantities as building stone, so abundant and ready to hand is it.

The Mexican Central Railway Company have ordered machinery for working the Jimulco Coal Mine. There is every indication that it is a valuable "find."

Government advices from Pekin state that the Chinese Government adheres to the peace preliminaries signed on the 4th inst.

The Shenango and Mahoning Valley blastfurnace owners have formed a syndicate for the purpose of buying a large block of cokview to the manufacture of coke for use in

Under a charter granted by the Legis lature of North Carolina, the Roanoke Navigation and Water Power Company have been organized, with a capital of \$500,000, to encourage the erection of factories

In the Illinois House of Representatives the "Truck bill," providing that employees shall be paid in cash and not in trade, passed to a third reading by a vote of 94 to 24.

The anticipated "fast time" across the Atlantic, the coming season, will be of lessened interest in consequence of the with drawal of so many of the best steamers for

The first technical school in New Jersey organized under the law passed a year ago granting a subsidy to such institutions was opened on the 9th inst. in Newark. A new building has been erected especially for the school and competent instructors engaged. The object is to teach children useful arts

The commission created to rebuild the burned portion of the New Jersey State Capitol is inclined to believe that anything less than an entire reconstruction of the front of the building will be a wasteful expenditure of public money.

Fifty dwelling-houses will form part of the freight of a vessel bound to Aspinwall, South America, from Portland, Me. The houses are what is termed "knock-downs: every part, including roof, is finished, and shingles are painted, and they are ready to be he set up in about an hour's time after They were made in the Ottawa district, Canada, and are intended for the men who are at work on the canal. By sending in this form about 33 per cent. in freight is saved

plates required in the construction of the Berber-Suakim Railway is 45,000 tons, which from Samana Bay to Santiago, which, if must be conveyed on an average 120 miles. Assuming a camel load to be \(\frac{1}{5}\) ton, and a camel to march 10 miles, it would require 7400 camel-loads daily to complete the carriage within the year.

The French frigate Isere will leave Rouen for New York about the end of April, with Bartholdi's statue of "Liberty Enlightening the World.

Accounts continue to be received respect ing the enormous production of the Russian oil fields at Baku, where one of the wells opened spouted oil to the hight of 100 feet. The product is refined on the spot by a pro-cess of dist llation, the residue being used as fuel, both for steamers on the Caspian and and upon many of the Russian railways.

In the United States Circuit Court at San Francisco, last week. Judge Sawyer rendered an important decision in the case of Adele Taft, a citizen of New York, vs. Arthur W. Bowman, an insolvent fiduciary She brought suit to recover \$64,000 agent. from defendant after the insolven from defendant after the insolvency pro-ceedings had begun, and attached his property. The Judge decided that a foreign creditor cannot come in and attach prop-The Judge decided that a foreign erty of an insolvent after insolvency pro-ceedings have begun, and thereby obtain priority over other creditors, and the attachment was discharged.

payment of customs dues. He says: "Their Matamoras. They have a language and sign manual of their own. They are splendidly mounted and splendidly armed. They are the gayest dressers in the Mexican nation. being turned out every month are altogether in excess of the requirements of trade," but They are the most reckless spirits of either country, picked men every one of them; young, hardy riders, straight shots, fertile in resource, beloved by the people, friends of the small merchants, the lights of the baile, supporters of the priesthood and rabid patriots every scoundrel of them. The traffic consists in the most valuable articles of Mexican produce—horses, cattle, tobacco, mescal, linen, &c — smuggled into the United States, and cloths, arms, wood, iron and oticeably morphine and quinine taken into Mexico. As a familiar illustration : is bought on this side the river at 5 cents per yard, and the Mexican duty is 12½ cents. It is sold in Moncloon-beyond the free zone-at 6 cents per yard. It is hauled 150 miles over a rough country, alleged to be under the complete control of the Mexican officials, and sold at I cent. advance American prices. This is done openly in the principal stores of the town."

The famous Holland ram, said to have cost the friends of Ireland \$15,000, is secreted at New Haven, apparently awaiting the course of events.

At Zacatecas, Mexico, some very valuable in mines are said to have been developed. Tin nuggets, one weighing over 5 pounds, have been taken out of the gravel. This large nugget is second only to the largest ever found in the English mines of Cornwall.

The White Star Line between New York and Liverpool will have two important additions to their fleet-the Belgic, which was launched in January and will shortly be ready for sea, and the Gaelic, now at the yards of Messrs. Harland & Wolff, Belfast, Ireland, having her machinery fitted. Four large steamers for the Havre Line are building at St. Nazaire.

The German Reichstag has approved th Chancellor's line of steamers Subsidy bill, so that the routes to Australia and Eastern Asia, with a branch line to Trieste and Brindisi, are now secured, at a cost to the nation of 4,000,000 marks, for the next 15 years. The Australian line is to include a branch one to the Samoa and Tonga Is-

The report of the Cunard Steamship Company states that during the year which ended last December the depression in trade had so affected freights that the directors had been unable to declare dividends or to add to the insurance fund.

The Northwestern Lumberman, of Chicago emarks that there will be little navigation on Lake Michigan before April 20 to 25, and it is expected that but a small amount of lumber will be received before May 1.

Trade with Hankow is in a demoralized condition, owing to the war between France and China; but the imports of American sheetings, drills, twills, jeans, ginseng and kerosene have been very large, and are increasing. Consul Shepard adds that another year will doubtless see the completion of a tel-egraph line from Hankow to the Yangtze

Consul Morlan goes into ecstacies over the trade of Belize with this country. He says I have seen American clocks that came through Great Britain, and the commissariat here recently received a large consignment of Chicago corn beef from there. of Chicago corn beef from the United States consisted of beef and pork, flour, cotton goods, bullion and coin, lumber, boots and shoes, butter, drugs and chemicals, hardware and cuttery. The export trade to the United States consisted of bullion and coin, bananas, cocoanuts, rubber, raw sugar, logwood, mahogany and plantains, in the order named. He gives abundant figures to show the mag-The export trade to the United nificent opportunities for American trade in that country, though Great Britain is now in the lead, having increased its business there 100 per cent. during the last year.

San Domingo is alleged by Consul Astwood to be in a desperate strait. Commerce has reached its maximum unless a reciprocal treaty can be effected with the United States, while the price of sugar and tobacco has been so reduced that the planters are in a bankrupt condition. The Republic is over The mere weight of rails, sleepers and whelmed with debt, on which ruinous interest is being paid. A railroad is being built ever completed, will open up rich tracts of land capable of producing immense crops of sugar, coffee, tobacco and tropical fruits. At present there is not a single wagon road penetrating more than 3 or 4 leagues into the interior. During 1883 the imports amounted to \$3,142,102, and the exports to \$2,120,266. From the single custom house of San Domingo the exports were \$954,329, of which \$856,975 came to the United States of the bank moneys and making false entries. On three of the counts, or as afterin the shape of sugar, honey, molasses and gnumvitæ.

Resolutions before the Dominion Parliaent con'emplate the opening of negotiations with the United States for the renewal of reciprocal trade relations. This movement is in anticipation of the termination of the fishery clauses of the Treaty of Washington, now not very remote.

It is intimated from London that, unless Americans show more interest in the London Inventions Exhibition, the space allotted to them will be withdrawn.

Cyrus W. Field withdraws from all official connection with the Western Union Telegraph Company and other corporations, preparatory to retirement from active busi-

The Cramps, at Philadelphia, have begun work on a new steam yacht, on their own who gave the impression that he is the repaccount, and she will be 160 feet long on resentative of Eugland in the hog business in French system, and proposing that 30 cents A San Antonio (Texas) correspondent deck, 22 feet beam and 12 feet 6 inches depth this country. He shook his head wisely

engines will be of the triple expansion combands extend from El Paso del Norte to pound type, with the piston-valve on the Matamoras. They have a language and sign manual of their own. They are splendidly indicated horse-power. The boilers will be vears." but he stated that within the past of steel, to stand a pressure of 160 pounds to the square inch. The vessel will be guaran-teed to make 16 knots per hour.

Oak seasoned by steam at high pressure is deteriorated. The outside of the timber appears sound, but the middle is reduced to a condition of brown charcoal. Beams subected to such treatment are concave on their sides, while those seasoned by simple exposure to the air have somewhat convex sides. Unseasoned oak timber kept in a dry room at 150° F. loses 25 per cent. of its

The tin-bearing area in New South Wales is estimated at nearly 8500 square miles, but at the present time the New England district yields the most of the tin produced.

The United States is said now to be the the world, and the annual product is placed at \$35,000,000.

Twenty vessels in which Americans were interested have been totally lost in the Chinese seas within the last two or three years. Fifteen of them were owned wholly part in Boston, and the aggregate value of els and cargoes probably exceeds \$2, 000,000.

The latest experiment in the organization of industry comes from Russia, where the employees at the large engineering works belonging to the firm of Struve & Co. have recently been planted in a complete settle ment somewhat like Pullman City, near Chicago. The workmen, of whom there are between 3500 and 4000, are lodged in small cottages, most of which are made to accom modate two families only, while the public institutions of the colony include a refectory, a laundry, a hospital, a benefit society, a technical school and a co-operative store. The employers contribute handsomely to the enefit society, but charity in any other form is quite unknown in the place, and the co perative society pays a flourishing dividend.

The new French Ministry have indorsed the project of M. Ferry's Cabinet concerning the enlargement of the Suez Canal.

A London syndicate has entered into a contract with the Government of Honduras to build and operate in that country an interoceanic railway. The concession includes land grants and mining privileges.

Professor Hermann's apparatus for deter mining the values of various lubricants for machinery consists of a perfectly cylindrical shaft supported on two journals, carried by a branched support which so turns on a hinge that the shafts can be adjusted at an angle of 5 to 10° to the horizon. The upper end of the shaft is rotated by means of a handle. To use the apparatus a bent piece of the ame metal as that to which the lubricant to be applied is placed astride of the shaft and suitably weighted, and the number of turns of the handle requisite to cause it to slide along the shaft with various lubricants The greater the distance traveled for a given number of revolutions the more efficient the lubricant.

The Pennsylvania Railroad will locate their Schuylkill Valley shops at Reading, and employ 1000 men there, giving them most of work from the Eastern Division and ranches of the system.

W. C. Andrews, who is interested in putting cable railroads and steam-pipes into this city, in explaining how he came to give his preference to such investments, said : Those enterprises in which a public franchise is granted have always been profitable, especially in large cities. In the history of New York, from the days of the Vanderbilt ferries to the present time, ferry enterprises, street railroads, gas, electric light, elevated roads, telegraphs, telephones, have all proven remunerative. It is the steady drip, drip of the few dollars from each one of a midion patrons that swells into accumulated miltions No one feels the small tax that is levied indirectly. For instance, it would make very little difference to you in the course of a year whether you paid 5 or 6 cents in street car fare; but to a company carrying 100,000 passengers per week it would mean \$52,000 a year. It is in investments of this character that large returns transaction.

After a trial lasting over a month, Jame D. Fish, ex-president of the Marine Bank was, on Saturday, found guilty of misapply ing its funds and making false entries on wagon road the books, with intent to defraud the bank dictment originally contained 25 counts, and the jury found Mr. Fish guilty on 12 counts. ward condensed, one count, charging abstraction of the bank's securities, he was not found guilty. One count alone would give Mr. Fish from three to five years in prison.

A Halifax dispatch says that, owing to the unprecedented low price of copper, all mining operations at the Betts Cove district have been ndefinitely suspended. About 1000 men were employed there. These mines were for-merly owned by a Boston and New York syndiente. The output of ore within a few years has been worth over \$6,000,000.

The existing treaties between the United States and Peru terminate, by notice from the latter, March 31, 1886.

The temper of some of our speculative philosophers, in prospect of a European war, may be judged of from the recent reported conversation of Paul Armour, of Chicago,

said: "I don't care to express any views, as two months his firm had sold to England 20,000,000 pounds of canned beef, besides an enormous amount of mess pork. He was then notified that the English had a two years' supply for the Soudan campaign. just as he was humanely congratulating him-self that he could give the pigs a holiday there came an order for 500,000 cans of beef and an amount of pickled pork which, in his eloquent phraseology, swept the American market. Everywhere that Mr. Armour has been of late he found things flourishing, and he is sure that the depression is over. To listen to him one would suppose that the pig is playing the same part in the United States that the goose did in ancient Rome - saving the Republic.

It is stated on apparently good authority that the fast steamship America, of the Nathird largest silk-manufacturing country in tional Line, has been purchased by the British Government for £250,000.

> The Mason cotton-harvesting machine has eached such a stage in its development as a new and useful invention that it may be said without extravagance that the problem of harvesting cotton by machinery has been solved. The machine was thoroughly tested on the last cotton crop from the moment when the first open bolls made their appear-ance to the time when the plants, having been frost bitten, were dry and brittle as glass. In all the stages of the crop from first to last the machine demonstrated its perfect ability to gather the open cotton from the field without the slightest injury to the plants or immatured fruit.

The recent slight improvement in English shipbuilding is not such as to warrant expectations of an immediate solid revival. A Glasgow letter says: "The Government has ordered from a Clyde firm, Messrs. J. & G. Thomson, six torpedo cruisers of the Scout class; the Pacific Steam Navigation Company have placed with the Barrow Shipbuilding Company an order for two steamers of over 6000 tons each, and the Peninsular and Oriental Steamship Company have or dered from Messrs. Caird, of Greenock, a vessel of over 4000 tons. These are all the contracts of importance that have been placed of late. The Admiralty are soliciting tenders for several ironclads, belted cruisers and torpedo boats, while it is an ticipated that ere long some substantial or-ders for ships will be secured from Germany. as that country is making powerful efforts to keep up regular lines of communication between the Fatherland and certain colonies. As the vessels recently ordered are being built of steel, the makers of that material, acting in concert, raised plates, first, 2/6, and afterward 5/, making the price £7 a ton. Whether or not the steel-makers will be able to maintain the advanced price will depend very much on the amount of new nage ordered from shipbuilders during the course of the summer.

Merchants representing leading interests in St. Louis contemplate an excursion to

Brown & Hirth, of Pittsburgh, have received proposals from a New York firm for the manufacture of 50,000 military rifle barrels.

A commercial convention has been called to meet at Atlanta, Ga., on May 19. 20 and 21. The subjects to be considered are commercial and reciprocity treaties between the United States and foreign countries, a national bankrupt law, the compulsory coinage of silver, railway transportation, and such other questions as the convention may deem proper. The purpose of the convention is to influence the course of the new Administration before the assembling of Congress next December.

Railroad construction in the River Plate countries, South America, has come to a

Will British ships be allowed to pass the Dardanelles is a question which remains to

Commercial stagnation prevails in Vene zuela, Guatemala and San Salvador, and trade continues lifeless in Jamaica, Barbadoes and St. Kitts.

John Stewart, founder of Stewart & Co.'s extensive wire works, in South Easton, Pa. died on the 13th inst., at the age of 89 years. He had been president of the First National Bank of Easton for 12 years.

The total immigration into the United States during March was 23,350, of whom nearly one third were from Germany, making a total for the last nine months of 224, 600, as compared with 304,825 for the corresponding period ending one year ago.

Señor Romero, the Mexican Minister, regards the negotiations for peace now taking place in Central America as a virtual settle ment of the question at issue.

A fire at Nos. 82 and 84 Fulton street, this city, damaged goods owned by L. G. Tillotson & Co., dealers in telegraph supplies, to the amount of about \$5000, and the Eaton, Cole & Burnham Company, who occupied the basement, were damaged by water.

The United States Courts having decided that a neutral ship must be wholly owned by neutrals in order to secure protection from belligerents, a sifting out of British ownership is liable to take place, with the result of showing a surprising amount of tonnage carrying a foreign flag, but actually owned by citizens of the United States.

At the meeting of the Maritime Association of New York on Monday the Committee on Revival of Commerce submitted a memorial recommending the adoption of the per ton be granted by the Government for shows how Mexican smugglers evade the of hold, and will be schooner-rigged. The when asked about the prospects of war, and every 1000 miles sailed by vessels, sail or

steam, built and owned in the United States and engaged in foreign commerce, the payment to continue for 10 years, after which it is to be reduced 10 per cent. annually. Other commercial bodies are asked to join in urging Congress to pass such a law.

There has been a rapid increase within a few days in the demand for insurance to cover the risk of war between Great Britain and Russia, and the inquiry at the Atlantic Mutual office is described by an official as very extensive. The companies are writing on the property of the future beligerents, as well as that of neutrals, and as high as 3 per cent. premium has been taken on a British vessel from the East Indies.

Exporting machinery to Moxico is comparatively a rew business, yet our trade to that country last year comprised the following: Machinery, engines, &c., \$1,356,000 other manufactures of iron and steel, \$741. 000; hardware and cutlery, \$360,000, making a total trade of \$2,400,000.

Foreign Markets.

FRANCE

FRANCE.

Panis, March 30, 1885,—Metals,—The mixed up and unsatisfactory condition of local and foreign politics has exercised a depressing influence on general business, and also caused great duliness in the metal trade. Metals are all lower with the exception of Spelter, which is sustained. We quote toward the close, in francs, 19 100 kg.: Copper—Chill Bars, 115 & 118.75: Inzots and Slabs, 125: Best Selected, 128, and Pure Corocoro Ore. 192.50. Tin.—Banca, 215: Billiton, 211: Straits, 210: Australian, 211. and English, 207.50. Lead. 29, 25 & 27.25, and Spelter, 27 & 37.50. Iron.—The most active season for Iron in this city being at hand, and accounts from the North being rather more encouraging than otherwise, nrices have been firmly sustained at Paris at 19.50 & 14 francs as a basis. The Northern rolling mills have resolved not to sell any further below 14 francs, and rather curtail their output. From Saint-Dizier we receive the following report: "The improved feeling continues; orders are numerous, though not large; the amount of Iron shipped by rail from here during the week shows a notable increase. If the demand continues at the same rate a little longer, stocks of makers will begin to run low. Coke Iron is steady at 14.50 & 15, and Mixed at 15.50 & 16; Wire Rods are firm at 17 & 17.50. No. 20; Sheets of 1 mm.. 19. There is quite a demand for Wire for vineyards, & c., at 19.50 & 20 francs, No. 20. Wire Nails sell with sreat case at 25 & 26; Axles are wanted at 27 & 28. Foundries are the only works still complaining. Coal.—The season has so far advanced that our market has become dull and weak.—Moniteur des Interests.

BELGIUM

BRUSSELS, March 21. 1835.—Iron.—It is not an easy matter to define with anything like precision the tendency of our Iron market at this innoture. On the one hand there is a confident feeling that we are on the eve of a revival, if not general, at least partial, and, on the other, consumers show no disposition to pay producers any better prices than the low ones that have ruled during the winter time. This disagreement as to prices checks larger dealings, transactions thus being limited to a hand-to-mouth busidess. Makers cannot, however, be expected to sell for future delivery at ruling rates; they would, many of them, rather stop work, and only struggle on because they do not wish to discharge their workmen and because they are in hopes that better times are near at hand. From Charlerol we are informed that the improvement which was reported from there has made no further headway; all that can be expected there for the moment is that the greater abundance of orders may be kept up, small as they are, for the capacity of production of the district is considerable and will not meet with sufficient relief till large orders make their appearance. As matters stand prices can hardiv go on improving there. We quote to day as follows: English Fig. 5 francs #100 kg.; Luxemburr. 5: Charlerol, 6,75: Foundry, 4 @ 4.80; Merchant. 11.35 @ 12.75; Beanns and Andles, 1? @ 18. and Sheets, 14 @ 34.25. Coal.—Although the Fienu Coal miners' strike has now lasted some time, the market has remained uninfluence by the same, for even German Coal makes its appearance, and the demand is slack.—Moniteur Industriel.

GERMANY.

GERMANY.

Hamburg. March 33, 1885.—Iron.—Our Dortmund correspondent expresses himself in his last report to about the following effect: The general situation of the Pig-Iron mirket still leaves much to be wished for. Only the demand for Spiegel has improved slightly during the week, but, as the price offered does not cover cost, not much has been done. Stocks thereof are light. Puddling Pig is depressed. Bessemer is steady. Foundry Pig is less active. Thomas is steady. A better feeling prevails in rolling-mill products; prices for Bar Iron and Sheets remain unremunerative, but the demand for them reviews. Even an export demand begins to manifest itself. Overproduction is still a great drawback, but, if the demand continues to increase at the same rate it did during the week, stocks may soon be materially feduced. For Thin Sheets the usual spring demand does not vet set in, but can hardly be delayed much longer. In the Rolled-Wire branch no favorable change can be so far reported, and prices remain weak Bolts have receded still further. The In the Rolled-Wire branch no favorable chance can be so far reported, and prices remain weak. Bolts have receded still further. The difficulty seems to be that markets abroad are overstocked. Foundries and machine shops are busy in a small way. The first quarter has been dull for the latter; even the demand for mines has been slack, as they generally complain. A good demand is springing up for Cast-fron Pipe, but as so many new concerns here and abroad are soing into this branch of manufacture the thing may be overdone. All Steel-Rail and Railroad Material makers generally are doing remarkably well. overdone. All Steel-Rail and Railroad Ma makers generally are doing remarkably Bessemer Steel Mining Rails are briggn marks \$\polenable\$ ton. Locomotive and car shops remuneratively active. Metals are firm. L wanted, but not higher.—\$\textit{Boreanhalle}. HOLLAND.

ROTTERDAM, March 26. 1935.—Tin.—Our market has gradually lost its animation and firmness, and closes dull at 48.75 guilders 29 50 kr.. Banca. on the spot; at 48.75 from the coming sale; Billiton, spot, at 48.25, and July deliveries of do., 48.75.—Koch & Viterboom.

AUSTRIA

AUSTRIA
VIENNA, March 29, 1885.—tron.—The spring trade has this year opened unusually late in Austria-Husgary, but is now fairly under way, though in Merchant Iron it might be more active at the comparatively low prices ruling. The demand for Pig Iron has, on the other hand, gone on improving under the stimulus of the large preparations which the railroad companies, Government and private, are making for new constructions. The demand for Steel Rails and Rolling Stock. Bridges and Sheds is assuming greater proportions, causing greater firmness in Pig and Finished Iron, but without, so far, leading to an advance As matters begin to shape the outlook is decide-ly reasuring, not to say hopeful. We quote at the close on a steady market: Pig Iron, 47 @ 56 florins % ton; Merchant, 106 @ 139; Sheets, 160 @ 190. and Beams, 106 @ 115. Metals have been moderately active and sustained.—Austrian Trade Journal. EAST INDIES

Singapore, February 23, 1885.—Tin.—The market opened at \$25.69%, and, under a Chinese demand. subsequently improved to \$31.1% @ \$32.25 % picul, while Europeans took 130 tons. Shipments hence since January 1 reach 19.092 piculs to Fingland, 1007 to the Continent and 234 to the United States. Exchange, four months' bank bills, 3/6%. Gilfillan, Wood & Co.

Gifillan, Wood & Co.

PENAMO. February 24, 1885.—Tin.—Opening at \$24.70 @ \$24.90, the price was sustained till the 14th inst., when the Chinese new year interrupted business, to reopen at an a vance to \$25.55 on the 17th, followed toward the close by a further improvement to \$25.50, 10 under a demand for China. While the receipts amount-d to 5000 piculs, Europeans took 5500, and Chinese \$200. There have been exported hence since January 1: 24,121 piculs to England; \$10 to the Continent, and 2023 to the United States. Exchange, four months' sight bank bills, 3/634.—Schmidt, Kustermann & Co.

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Mann W. Jr. & Co., Lewistown, Pa

Peck A. G. & Co., Cohoes, N. Y..... Baukers. P. W. Gallaudet & Co., 2 Wall, N. Y... Bar Iron. Virginia Nail and Iron Works Co., Lynch Barb Wire & Fence.
Gautier Steel Department of Cambria
Iron Co., Johnstown, Pa.
Hawk Eye Steel Barb Fence Co., Burlington... lowa Barb Wire Co., 98 Reade, N. Y.. Thorn Wire Hedge Co., Chicago, Ill... Washburu & Moen Mfg. Co., Worcest Barb Wire Fence Guards. Safety Barb Wire Fence Guard Co. Bellows, Manufacturers of. Bullock F. H., Cleveland, O. Scott Geo. M., Chicago, Ill.... Beils (Sleigh). Bevin Bros. Mfg. Co., Easthampton. Bicycles. Pope Mfg. Co., 597 Washinton, Boston Bird Cages, Makers of, Heinz & Munschauer, Buffalo, N. Y... Lindeman O. & Co., 254 Pearl, N. Y... Maxwell John, 247 and 249 Pearl, N. Y Amidon & White, Buffalo, N. Y. ... ives W. A. & Co., New Haven, Col Millers Falls Co., 74 Chambers, N. Saxton E. R., Buffalo, N. Y. ... Blacksmiths' Drills. Blind Awning Fixtures. North F. O. & Co., Boston Mass.
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Detroit Blocs Worzs, Detroit, Mich.
McCog & Sanders, 26 Warren, N. Y.,
McMillan Wm. H., 113 South, N. Y.,
Pentield Block Co., Lockport, N. Y.,
Shubert & Cottingham, Philadelphia Blowers. Philadelphia, Pa... Boiler, Compound. Crescent Mfg. Co., Cleveland, O.... Boiler Feeders. Boiler Plates. Wm. McIlvain & Sons, Reading, Pa... The Seidel & Hastings Co., Wilming Boit and Rivet Clippers.
Chambers, Brother & Co., Philadelphia Borax. Smith, J. P., San Francisco, Cal. Boring Implements.
Aminon & White, Burlalo, N. Y.
Ives W. A. & Co., New Hayen, C.
Square Hole Auger Co., Wooste Boxes for Hardware. Green S. H., 12 durray, N. Y Brackets, Stair Rail, &c. Jones M. D. & Co., Boston, Mass Brass, Manufacturers of.
Ansonia Brass & Copper Co., 19 Cliff, N. Y. Bridgeport Brass Co., 19 Murray, N. Y. Davol John & Sons, 100 John, N. Y. Holmes, Booth & Haydens, 25 Park Place N. Y. Plume & Atwood Mfg. Co., 18 Murray oville Mfg. Co., 421 Broome, N. Y. ... eterbury Brass Co., 296 B'way, N. Y. Brass Butt Hinges. Brass Founders.
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McCaffrey & Bro., 1732 a 1.44 N th, Phil. 8
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Sellers Wm. & Co., Philadelphia, and 71

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Egleston Bros. & Co., 160 South, N. Y.

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Pullman J. Wesley, Philadelphia, Pa.

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Everson, Hammond & Orr, Pittsburg
Jersey City Galvanizing Co., Jersey
Lefferts, Marshall & Co., 90 Beekman,
Merry John & Co., 555 to 547 W. 15th.
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Lawn Mowers.
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One Power Punch, punching a 34-inch hole through 34-inch plate, 24 inches from the edge.
One set of Bending Rolls, with housings; rolls wrought iron; 6 feet 4 inches long.
24 feet of 134 inch shatting, with couplings.
Two 24-inch Pulleys, 10-inch face.
Two 24-inch Pulleys, 10-inch face.
Two 25-inch face.
Two 25-inch face.
Two 25-inch face.
Two 25-inch face.

One 13 ... 6 M. C. McILVAIN, Reading, Pa.

Wire and Rivet Machinery FOR SALE.

All the machinery from the plant of Farmer Brothers & Co., at Penn Yan, New York, including Engine, Boliers, Shafting, Tools, &c; three open and solid die Rivet Machines: Wire Nail Machine; two large benches of Wire-Drawing Machinery, complete, with blocks 1s, 16, 2s and 2g inches diameter; one fine Wire Bench with 8 in. blocks, all supplied with best imported Steel Plates, with Lathes, Furnaces, Shafting, Gearing and all appliances to make a complete Wire Mill: Engine Lathe, Drilling Lathe and Shafts; Planer and a large quantity of Tools. This property will be sold at a bargain if concluded within the next forty days by the subscriber, at Syracuse, N. Y. R. N. GERE, Assignee.

350

Engines and Boilers FOR SALE.

I am crowded for room and will sell cheap or trade for Nails, Bar Iron or Pipe.
H. M. SCIPLE,

107 and 109 N. Third st., Philadelphia Bargains.

-Horse Horizontal Engine. New. Tubular Boiler. New. LOVEGROVE & CO., 152 N. Third St., Philadelphia, Pa.

For Sale, Factory,

Nearly new; on two railroads. Acre of buildings cost \$33,000; take \$25,000, part real estate, large Engines, Boilers, Shart Ig. &c. Will put capital in some good manufacturing. A. C. McCONNELL, Broker, Cleveland, Obio.

FORSALE.—A well-selected stock of Hardware, Tinware, Stoves and House-furnishing Goods. Business long established. Population of town. 2000. Reason for selling, ill health. Stock will invoice §coc. Address WALTER M. MORGAN, Mechanicsburg, Ohio.

FOR SALE—34 x 48 Corliss Engine, now run-be delivered June 1, 1885. For further particu-lars, apply

ROBERT WETHERILL & CO.,

Chester, Pa.

PUSINESS WANTED.—A Civil Engineer, experi-to invest, desires to connect bimself with some es-tablished manufacturing business in which his clinica-tion and experience can be made profitable. Address "B. W."

Office of The Iron Age, 53 Reade St., New York.

WANTED.—A gentleman with large experience in selling, well and favorably regarded among the Iron, Steel, Hardware, Paint, Oil, Rallway Supply and other trades throughout Canada, desires an engagement to represent a reliable American firm. Could successfully handle a specialty. Salary or commission. Best of references. Address. "MANAGER." Post Office Box 448, Montreal, Canada."

WANTED.—A position as manager or buyer for Hardware house. Have had over so years practical experience in the West and South and on the road. References strictly first class. Address "THOROUGH HARDWARE," Office of The Iron Age, & Saeade Street, New York.

Special Notices.

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1 Engine Lathe, each 10, 11, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 28, 30, 36, 42 and 48 in swing; length of bed to suit.

1 Fox Turret Lathe, each 13, 15 and 16 in. swing; 5 ft, bed.

1 Sq. Arbor Fox Lathe, 15 in. x 6 ft.

1 sq. Arbor Fox Lathe, 15 in. x 6 ft.

1 ron Planer, each to plane 18, 20, 22, 24, 26, 30 and 36 in. wide and high; length of table to suit.

1 each, 16, 20, 22, 23, 25, 28, 30, 34, 38 and 42 in. swing Upright Drills.

1 each, 2, 3, 4 and 6 Spindle Gang Drills.

1 each, 2, 3, 4 and 6 Spindle Gang Drills.

1 each, 2, 3, 4 and 6 Spindle Gang Drills.

1 each, 2, 3, 4 and 6 Spindle Gang Drills.

1 each, 2, 3, 4 and 6 Spindle Gang Drills.

1 each, 3, 20, 22, 23, 25, 36, 30, 34, 38 and 42 in.

1 each, 3, 20, 22, 23, 25, 36, 30, 34, 38 and 42 in.

2 each, 3 and 2 Spindle Gang Drills.

1 Grant & Bogert Milling Machine.

1 each, 30, 2, 4 and 8 Screw Machines.

1 each, 3 and 7 Spindle Nut Tapper.

1 Bring and Turning Mill, each 50 and 72 in. swing.

1 Cutter Grinder.

Be ring and Turning Mill, each 50 and 72 in. swing. Cutter Grinder. 12 in. and 24 in Cylinder Horizontal Eopine. each. 4, 5 and 6 ft. Arm Universal Radia: Drills. Pat. makers' Lathe. 25 in. x 12 ft. betw'n centres. Grant's New Universal Miller. Pr. Bending Rolls for 1/4 in. x 60 in plates.

SECOND-HAND. Engine Lathe, each 18 in. x 8 ft. Good as new Iron Planer, 24 x 24 x 6 ft.

1 20 x 20 x 4 ft. At order.

1 24 x 24 x 5 ft.

2 30 x 30 x 7 ft.

1 " 30 X 30 X 7 ft.
140-lb. Bradley Hammer.
1 Lincoln Pattern No. 2 Miller.
1 36-in Gear Cutter.
1 Horizontal Boring Machine: takes 6 ft. between centres: 36-in. swing.
All kluds Machinists' Tools and Supplies. NEW YORK AGENCY OF

THE TANITE CO., TAYLOR MFG. CO.,

Engines, Boilers, &c., AND FOR THE

"New Polished" Shafting. H. Prentiss & Co., 42 DEV STEET, NEW YUMA.

Engines and Boilers.

NEW AND SECOND-HAND.

The following new Slide-Valve Engines guaran-

teed complete and first class: One 18 x 30. One 18 x 24.
One 14 x 24. One 14 x 20.
One 14 x 18. One 16 x 24.
One 10 x 24. One 11 x 14.
One 15 x 10. One 8 x 16.
One 14 x 18, 2d-hand. One 2 x 24, 2d hand.
One 50 H. P. Horizontal Tubular Boiler

Large stock assorted sizes new and latest improved Engines and Boilers. Come and examine our stock. Plans, estimates and specifications furnished for mills and factories, guaranteeing best results; steam engine indication; cards demonstrated for economy, &c. Send for circular.

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LAMBERSON'S HARDWARE PRICE BOOK.

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UNIVERSAL DISCOUNT BOOK, 28 Discounts, 10 to 80 per cent.

BOLTS, SCREWS, FILES, BUTTS, BITS, SCREW-EYES & HOOKS, &c. Changes in list prices will not affect it. These books are invaluable in any Hardware Store. Cloth, \$\frac{g}{g}_{1,2}\$, Leather, \$\frac{g}{g}_{2,3}\$. Sent, post-paid, to any address on receipt of price by \$\frac{g}{g}_{1,2}\$. A \$\frac{g}{g}_{1,3}\$. Sent, post-paid, to any address on receipt of price by \$\frac{g}{g}_{1,3}\$. A \$\frac{g}{g}_{1,3}\$. Sent, post-paid, to any address on receipt of price by \$\frac{g}{g}_{1,3}\$. A \$\frac{g}{g}_{1,3}\$. Shapleigh & Cantwell Hdw Co., 8t. Louis, Mo., or William Biair & Co., Chicago, Ill.

A RARE OPPORTUNITY

For a profitable investment in a large established Manufacturing Business, centrally located in the city of Chicago, including a Machine Shop, &c., completely equipped with first-class modern tools a full line of patterns for the best-known-slide-valve engine in the We t; also variable and some automatic cut-off engines, and some spredal tools, all widely and favorably known. Desire to close out the entire business on acc unt of failing health. Includes the good-will and a long lease. A bargain and favorable terms to the right party. Address MACHINE SHOP, Office of The Iron Age, & Clark street, Chicago, Ill

59 DUANE ST. We have rented the above-named building in New York City for a salesroom and branch factory, and shall be glad to see all our old friends and patrons, as well as any in need of anything in our line. Dies a specialty.

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Vulcan Works Baltimore, Md.

This old-established Foundry and Machine Shop for sale or lease. Has a complete equipment in all departments. Tools for sale. Send for catalogue. Address as above.

Steam Hammer Wanted.

Second hand, of sufficient capacity to forge 8 x 8 inch square blooms.

Must be in good condition. Address, stating full particulars, and rock bottom price.

"STEAM HAMMER,"

Office of The Iron Age, 83 Reade St., New York.

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OLD CAR WHEELS. BURNT IRON, OLD HOT BLAST PIPE, &c., and all kinds of Scrap Iron, in carload lots. A dress, stating quantity, price, delivery, &c , SITES, GILL & CO., 222, 224 So. Third St., Philadelphia, Pa.

To Rent with Power. AT PUTNAM, CONN.

A well lighted room, 40 x 80; good chance for manufacturing of any kind; side track runs right up to shop; foundry 50 feet from building. PUTNAM FOUNDRY & MACHINE CO.

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Will sell cheap for cash and time payments, or will exchange for real estate or lumber, any part of the following machinery, subject to inspect on before

I Train of Lauth's 24 in, 2-high Rolls.
I Train of 2-high 22-in. Plate and Sheet Rolls and Duplicate Rolls.
I Train of 20 in. Soft R lis and Duplicate Rolls.
I Train of 20 in. Soft R lis and Duplicate Rolls.
I Compound 18 inch Muck Train and Duplicate Rolls.
I Large Engine, 32 x 42, horizontal. 20-ton fly, doubly braced wheel. 12-ia., face
I Large Rolary Squeezer for 150-lb Bail.
Large Roll Turning Lathe for Turning up Rolls.
Large Roll Turning Lathe for Turning and Rolls.
I Large Roll Turning Lathe for Turning the Rolls.
I Large Roll Turning Lathe for Turning the Rolls.
I Large Roll Turning Lathe for Turning the Rolls.
I Large Roll Turning Lathe for Turning the Rolls.
I Blate Cranes for Handling Housings and Rolls.
I Blate Shear.
I Bhaping Shear.

Sheet Shear.
Shaping Shear,
Muck Shear.
Scrap Shear.
Scrap Shear and Engine.
Large Sturtevant Biower and Pipe.
Gurance Plates for 4 Charcoal Fires, including Valves &c. Battery of 3 extra flange Fire-box Boliers; size 28 ft. by 48 in; 2-flue, 16 in., to operate together or separate; with ail connections. Large Bolier, fire-box metal, 28 ft. by 42 in. or 44 in. Small Boliers, 22 ft. by 42 in. Track Scale, Wagon Scale, Mill Scales. Tools, Tram., 243, Buggles, ratterns, &c.

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SCRAP IRON FOR SALE.

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co " No. 1 Wrught Fou.
co " Sheet and How Steel,
co " Heavy Cast-Iron Rotlers,
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25 " New "Fagle" Horse Shoe Bar,

Also a large assortment of New and Second-hand Machinery, Tools and Belting. Correspond-ence solicited.

A. LIEBERMAN,

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For Sale. One 50-foot Air Hoist for Blast Furnace, air cylinder 30 inches internal diameter, with necessary sheaves. Will hoist two barrows of stock

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at once. Apply to

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For Sale.

New Heavy Bar Shear; weight, 15,000 lbs.; cuts 1½ in. x 16 in.; geared eight to one; 200 lb. Fly-Wheel on Phinor Shaft; all complete on a heavy bed-plate; requires very little foundation; driven by 8 x 10 inch Engine, attached. A greatbargain. A. G. BROOKS,

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New first-class Machine Tools at very low crices, combining all the latest and best im-

Engine Lathes with 6 and 8 foot beds, 16-inch swing.
18-inch swing, with 8, 10 and 12 foot beds. ay-inch swing, with 12½-foot bed.
26, 27 and 28 inch swing, with 12½-foot beds.
For description, cuts and prices, address
JOS. B. REED,

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For Sale. The Hardware Stock of the late C. I. Wetmore is now for sale at a bargain. The location is the very best and has been known as a Hardware stand for 40 years. The stock is clean and freshnoold goods—and comprises shelf and Buildera' Hardware, Stoves, a small line of first-class Agricultural Implements, House-Furnishing Goods, &c. This is a grand opportunity to secure a well-established and money-making business, as the undersigned are determined to dispose of this stock at once. Address

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No. 10 Warren St., New York. Regular sales of Hardware, Cutlery, &c. Sales cashed promptly. Consignments of goods solicited.

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Salesman who solicits the Hardware trade can find good selling articles in that line by address

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Position as Chemist in an Iron or Steel works laboratory by a young man. Have worked on Limestone, Iron Ore, Coal, Slag and Silicon, Sulphur. Phosphorus, Manganese and Carbon in Iron and Steel. Can furnish balance and necessary apparatus for work. Address W. M. GIBNON, Portsmouth, Ohio

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WANTED TRAVELING SALESMAN for Builders' Hardware, &c., to carry sample and take orders for a first-class article; weight of sample: 22 oz. Address at once 129 Vall Ave., Lansingburgh, M. Y.

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Old No. 2, with lighter interleaving and without down ruling. A few copies are in stock, which will lots, Nos. 1, 2 and 3, equal portions, f.o.b. he closed out, including the 84 extra pages, at Price lots, Nos. 1, 2 and 3, equal portions, f.o.b. shipping ports.

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18 In ordering, state if you prefer Tin, Wooden and Bollow Ware left out. If not so stated, complete books will be sent, including these lines. These Price Books are ladispensable to hardware buyers, travelves growth and the property of the pr T. W. ROOT, Detroit, Mich.

FOR SALE, CHEAP.

48 Corliss Beam Engine. Geared.
42 Horizontal Corliss Engine.

16 X 42 Horizoniai Control 14 X 48 11 14 X 48 11 14 X 48 11 14 X 48 11 Horiz Tubular Boiler, 60 in. X 17 ft. Complete. Blake Crushers. Nearly new, 15 English G 19 Lathe, New, 24 in. X 20 ft.; swings 48 in. by 22 in. in gap

D. B. CRUICKSHANK,
243 Dyer St., Providence, B. I.

WHAT ARE YOU LOOKING FOR?

I have on hand a very large stock of New and Second-Hand Machinery, comprising

ENGINES. Automatic and Slide Valve. BOILERS, Vertical and Horizontal,

STEAM AND BELT PUMPS, STEAM ENGINE GOVERNORS.

MACHINISTS' TOOLS,

HOISTING ENGINES, WOOD-WORKING MACHINERY.

STURTEVANT BLOWERS. Write and state your wants, and will send full

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PIPE - THREADING MACHINE For Sale Cheap.

One No. 4 STOCKWELL IMPROVED MA CHINE, Complete with Hangers, Countershaft and Cone Pulleys, 4 speeds.

Cuts and threads pipe 1/4 to 3 inches, inclusive, right-hand threads, and ½ to 3 inches, inclusive, left hand. Has Patent Adjustable Dies and Patent Gripper, by which pipe can be put in and taken out without stopping the machine. Has been in use one year.

FIELDHOUSE, DUTCHER & BELDEN, Manufacturers of Pipe and Fittings, 30 W. Mouroe st., Chicago.

For Sale.

the best cities in New York State is desirous of On Friday a decline of 2¢ @ 3¢ in wheat disposing of stock and business to reliable parties.

"X. I. T.,"

Dynamos For Sale Cheap

Two Dynamos, one 20-Light and one 18-Light, with Lamps, 2000 candle power each about three with Lamps, 200c can depower each about three miles insulated wire and fixtures—in fact, everything necessary to operate a plant, exception engine. Can send electrician to superintenderection if r quired. Correspondence solicited, address. "DYNAMOS."

Office of The Iron Age, 84 Reade St., New York,

PHILADELPHIA, PA., April 18t, :885.

WE offer in lots of not less than 25 doz LIFP-EYE Picks-six Ibs each, CAST-STEEL points, polished and painted and packed two doz. in a case (NO CHARGE for cases)-at FOUR At the close the general position was strong

C. HAMMOND & SON.

LEIGH'S

ecially arranged for the use of the HARDWARE TRADE. Acknowledged by ALL the best work of the kind ever published. Price by mail ONE DOLLAR. Address E. B. LEIGH, Sec'y The American Brake Co., St. Louis, Mo

who will send me the name or give me such information as will lead to the sale of a Boiler Engine or mill, will reseive a regular commission.

H. M. SCIPLE, 107 to 109 N. Third St., Philadelphia.

The Sterling Iron and Railway Co.

HAVE REMOVED TO

45 WILLIAM STREET.

NEW YORK, April 6, 1885.

Trade Report.

British Iron and Metal Markets.

[Special Cable Dispatch to The Iron Age.] LONDON, WEDNESDAY, April 15, 1885.

Scotch Pig.—The market is not so eady. We quote makers' brands as steady. follows:

Coltness, alongside, Glasgow Gartsherrie, Summerlee. Carnbroe, Glengarnock, " Ardrossan. Eglinton Dalmellington, " Lighterage from Ardrossan to Glasgow is 1/#

Cleveland Pig.-Is unchanged. We continue quotations, f.o.b. shipping ports:34/6

Hematites are quoted 44/@ 44/6 for mixed decline is but moderate.

	Æ	S.	d	£		9.	d.
Staff. Ord. Marked Bars	7	10	0	a.			
" Medium "	6	0	0	0	6	10	()
" Common "	5	10	0	0	5	15	6
Hoops, 20 W. G. and over.				-			
" Common Best	6	15	0	0			
" Medium	6	5	0	0	6	10	0
" Common	6	0	0	0	6	7	6
Sheets, 20 W. G. and under.							
" Ordinary Best	3	15	0	0	8	5	0
" Common	7	8			7	15	0
Welsh Bars	4	17			5	2	6
Stool Rails Am a li	441		-	dia			7

quote £4. 15/, f.o.b. shipping ports. Old Rails-Are unchanged. We quote Old D. H's, c.i.f. New York, £3 @£3. 2,6. Scrap .- The market is unchanged. We quote Heavy Wrought £2. 10/ @ £2. 15/,

Copper.-The market is not so steady. We quote Best Selected, £49 @ £50, and Chili Bars, £43. 15/ @ £44. 5/.

Tin-Is irregular. Straits Ingots, spot, £77. 5/ @ £77. 15/, and futures, £78 @

Tin Plates-Are unchanged. We quote : Tin Plates, 10x14, 1st qual. Charcoal....19/6 @ 21/6 " 2d " " 12/8 @ 19/
" 1st " Coke17/6 @ 18/
" 2d " "13/ @ 18/6 Spelter -The market is unchanged. We

quote Ordinary, at shipping ports, £13. 17/6 Lead .- The market is quiet. We quote

Common English Pig, £10. 12/6 @ £10.

Freights.-Steam from Glasgow to New

Financial.

Office of The Iron Age, WEDNESDAY EVENING, April 15, 1885.

The week has been one of unusual excite ment in the speculative markets, notably in grain, provisions, cotton and stocks, prices fluctuating sharply with the varying phases of the war news from Europe. As convictions have tended more decidedly to a belief that war is inevitable, values of speculative commodities have advanced, cotton al ne excepted, which is lower. News of a collision on the Afghan frontier, received on Thursday, caused an advance almost without precedent for one day-6¢ @ 61/2 & bushel for spot wheat, 2¢ @ 21/2¢ for A Hardware Firm doing a good trade in one of spot corn and 15¢ @ 20¢ P barrel for flour. was caused by an advance in British consols. There was considerable inquiry for marine insurance covering the ri-k of capture, Office of The Iron Age, 81 Reade St., New York. but the opinion was expressed that would have little effect on freights mainly because British shipowners could easily place their vessels under another flag-the German, Norwegian or Danish. Later in the week the war excitement was renewed, flour advancing to a point that checked business-50¢ @ 75¢ within the week. At the same time cotton broke heavily, but afterward advanced on large purchases. The Western markets were DISCOUNT BOOK fair quantity of provisions was taken by Engheavy shipments of grain as soon as navigation opens on the St. Lawrence

As indicating the views frequently expressed effects of war between England and Russia. we quote the following remarks of A. S. Hatch, ex-president of the Stock Exchange

all our means of transportation will probably compared with March, 1884, is over \$5,be worked to their highest capacity. A rise in stocks would be bound to follow. The at this port are \$96,538,299, which is \$21,effect of the war upon United States Govern- 000,000 less than for the corresponding rise or fall in their market value may take than for the same time in 1883, and almost place will be reached through the money \$30,000,000 below the same three months of other side of the ocean becomes so great that from New York for March, exclusive of ing an increasing demand and the uncer call loans with good security, they are likely \$3,500,000 in produce and merchandise comto get rid of their Government bonds and pared with last year. For three months our put their money where it will do them the exports are \$82,555,980, as compared with made in usual differences of prices for better most good."

*75.520,203 in 1884. For nine months the qualities, but from indications it is to be most good.

were \$639,371,463, against \$831,644,340 for 947. the same week last year, a decrease of 21 %. February the total exports at all the ports Outside of New York, \$237,836.971, against decrease reported is at New Orleans, 38 %; Pittsburgh, 35 %; New York, 30 ½ %; Chicago, 17 %; St. Louis, 12 %; Milwaukee, 20 %; Lowell, 26 1/2 %, and Boston, 3 1/2 % Cities showing gains are: Philadelphia, 3 %: Baltimore, 3 %; Cincinnati, 6 ½ %; San Francisco, 10 %; Kansas City, 20½ %; Memphis, 28 %; New Haven, 22 1/2 %, and Peoria, 24 %; Compared with the previous week the

In general business, despite the abnormal activity noticed above, it cannot be said that Manufactured Iron.-The market is there is much indication of substantial improvement. Railway earnings are showing better results than one year ago, as a consequence of abundant crops, and it is satisfactory to notice a steady decrease in the number of mercantile failures, th se for the last week being less numerous than before for many months. At the same time the hopes entertained earlier in the season are still deferred, and the present is more emphatically a state of suspense. The trade in dry goods is disappointing, and the depression in cotton fabrics has led to an agreement in Fall River, New Bedford and other localities to run their mills on half-time until July 1. Coal is lower under a slack demand. The tea trade is paralyzed in prospect of peace with China. Sugar is quiet and steady. Petroleum is steady and moderately active. Provisions are well sustained, but are now less active. Tobacco is firm, with more demand for export. In ocean freights there is increased and unusual interest evinced in grain, with a free movement noted in sail tonnage, a novel feature in recent ex-

perience. The weekly statement of city banks indicates that the money sent to the interior to make the April 1 settlements has returned to this center. There is a gain of \$1,570,900 in specie and \$141,100 in legal tenders. The surplus reserve is increased \$1,279,275 by changes of the week, the banks now holding in excess of all legal requirements the sum of \$48,405,125. The weekly statement of the United States Treasurer has much more significance from the fact that the net loss in gold was \$4,678,000, leaving a balance of only about \$21,500,000. Another month of depletion at this rate would encroach on the \$100,000,000 reserve, and hazard a silver crisis at a time peculiarly unfortunate should war break out in Europe and the foreign money markets be burdened

by heavy loans. The Stock Exchange market through all the week was controlled by war news, fluctuating widely, but inclining to higher prices. On Thursday a sharp fall in consols in London induced a covering of short contracts realize. On Saturday there was considerable buoyancy, the grangers and trunk lines closing higher. Monday was dull in the absence of news. On Tuesday Jersey Central was strong in prospect of an early payment of the April interest, and at the close prices

U. S. 8 per cents. U. S. 41/58, 1891, coupon. U. S. 46, 1997, coupon. U. S. Currency 68, 1896 U. S. Currency 68, 1896 U. S. Currency 68, 1896 U. S. Currency 68, 1898. U. S. Currency 68, 1898. U. S. Currency 68, 1898.

The imports at the port of New York for the week were about \$1,500,000 larger than active and excited, and bad weather formed a for the previous week, the total value being prominent topic to stimulate outside buying. \$9,601,817, of which \$7,732,092 represents general merchandise, and the remainder dry DOLLARS per doz., net cash 30 days, t o. b. at an advance of 12¢ @ 14¢ ? bushel for goods. The total value of imports from wheat compared with one week ago, but January 1 to date is \$111,650,619, against suggestive of a bad collapse should foreign \$132,632,443 for the corresponding period glish shippers. It was telegraphed from those of the previous week, and make a is unchanged. Montreal that arrangements are made for total since January 1 of \$96,658,425, as total since January 1 of \$96,658,425, as against \$85,321,196 for the same time last at 9%¢ for Hallett, while Cookson is worth on our mercantile exchanges respecting the bushels of corn, 1500 tierces of beef and

3,354,000 lb cut meats. According to the Custom House reports the imports of specie at this port for the 'It means," he said, "a curtailment of week were only \$43,852, and the exports

ing houses of the United States last week | 681,892; imports for same time, \$310,924,-For the eight months ending with future by all of our stores. were \$159,601,414 in excess of the imports according to the returns now given from this port, should show a further small gain in the balance of trade.

Metal Market.

Copper.-Although the dealings have continued light, the price of Copper has been strengthened by the shutting down, present and prospective, of mines in the Lake region and elsewhere in this country in consequence of the low ruling of the metal. For Lake Superior, \$10.80 @ \$10.85 has been offered and refused, the price now being 11¢ asked: Arizona sold at 1056¢, and is now held at 103/¢; Anchor brand is quoted 10%¢ @ 10%¢, and Baltimore, after selling at 10 1/8 \$\psi\$, is now held at 10 3/4 \$\psi\$ on account of its scarcity. We do not attempt to make estimates as to the difference in production which the curtailment of output may bring about at this early stage, but, even admitting that the Calumet and Hecla produces more this year than selling at 105%¢, is now held at 1034¢ on met and Hecla produces more this year than rallies notably. A notable rallying during the summer we should call a recovery of 1884, and the endeavor to hasten orders Lake Superior Copper to 1134¢. Meanwhile Chili Bars touched the lowest figures they ever attained. From £44. 2/6 on the 10th lines, they recovered to £44. 10/the next day. inst. they recovered to £44. 10/ the next day, but on the 13th returned to £44. 2/6, dropped to the unprecedented figure of £44 on the next day, and to-day recovered to £44. 2/6. Export of Ingot Copper from Spain in January, 981 tons, against 973 in 1884, and 2668 in 1883; of Pyrites, 69,681 tons, against 51,984 and 54,195. Best Selected dropped in London from £50 to £49. 10. Manufactures may be nominally quoted Bottoms, 18¢; Braziers, 171/4¢; Sheathing, 16¢, and Bolt Copper, 18¢. We are cabled from London this afternoon that the market is not so steady. Best Selected, £49 @ £50,

and Chili Bars, £43. 15/@ £44. 5/ Tip .- Spot stocks and April are firmly held at \$17.70, Straits, while May can be done at 171/2¢. The London quotation was this morning, for spot, and three months' improved from £78. 2/6 to £78. 5/. This afternoon we are cabled that the market is irregular. Straits Ingot. spot. £77. 15/, and futures, £78 @ £78. 10/.

Tin Plates .- A moderate jobbing demand has been going on, while there is a tendency in freights and insurance. quote at the close, large lines, ordinary brands: Charcoal Bright, \$4.37½ @ \$5.25; do. Ternes, \$4.35 @ \$4.40; Coke Tin, \$4.37½ @ \$4.45, and do. Ternes, \$4.30.

Liverpool reports per cable a tolerably firm market; Coke is quoted 13/6 @ 13/9, and Charcoal 15/6 @ 13/9, and Charcoal 15/6 @ 13/9, and compared to the condition of the market remains about as when we last reported. The volume of business has not increased, prices are unchanged, and we can see nothing in the future to warrant an advance. We quote and a general advance. On Friday there was do. Ternes, \$4.35 @ \$4.40; Coke Tin, a reaction, partly caused by a desire to \$4.37½ @ \$4.45, and do. Ternes, \$4.30. Charcoal, 15/9 @ 17/. From London we are as follows: told that the market is unchanged.

Lead .- About 100 tons Common Domestic sold in a small way at \$3.60, at which the Soft Spanish, to £10. 10/. There may be an extra war demand for England and Russia. extra war demand for England and Russia. Manufactures are quoted as follows: Lead Pipe, 5 % \$\varphi\$ \$\varphi\$; Sheet Lead, 6 % \$\varphi\$; Tin-Lined Lead Pipe, 15\$\varphi\$, and Block-Tin Pipe, 40\$\varphi\$, allowing in trade for Old Lead delivered in New York, 3\$\varphi\$ \$\varphi\$ b. Shot, Drop, 6\$\varphi\$; Buck, 7\$\varphi\$; Chilled, 7\$\varphi\$. Shot in 5-b bags, 1\$\varphi\$ \$\varphi\$ Buck, Table 100 are cabled from London this afternoon that the market is quiet.

Spelter and Zinc.-The market has been Istless at \$4.25 (@ \$4.50, as to brand for Common Domestic. Calamine export from Spain in January 4666 tons, against 1796 in 1884 and 1511 in 1883; the increased export thence should be noted. Silesian Spel
"1 to 46x 134 to 1. 2 Round

"4 to 2 Round

"4 to 2 Round ter may be quoted 4 1/4¢, nominally; in Lonadvices become more pacific. Pork packers last year. The exports from this port for were also free sellers at the advance, and a fair quantity of provisions was taken by English shippers. It was telegraphed from those of the previous week, and make a specific part of those of the previous week, and make a specific part of those of the previous week, and make a specific part of the previous week, and make a specific part of the previous week, and make a specific part of the previous week, and make a specific part of the previous week, and make a specific part of the previous week, and make a specific part of the previous week.

year. Included were 103,000 barrels of 1014 f. The former delined in London from flour, 318,000 bushels of wheat, 699,000 £39 to £38 during the week.

St. Louis.

St. Louis, April 18, 1885. A considerable improvement in lines of the supply of breadstuffs and provisions of Europe and a sudden increase of the demand. exports of specie from New York make a Most of the buildings, however, are residisposing of all its surplus at very high rates.
Of course, as the various industries of America become active, and everybody is at work helping to turn out the materials needed in Russia and England, our railways

total of \$8,906,796, against \$26,284,000 for these ame time in 1884.

The statement of our foreign commerce for March shows a further decline as compared with any previous March since 1879, needed in Russia and England, our railways

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The statement of our foreign commerce for March shows a further decline as compared with any previous March since 1879, pansion of manufacturing plants common in former years. In general the volume of the expansion of manufacturing plants common in former years. In general the volume of these ame time in 1884.

Baltimore Creb. Baltimore Creb. Baltimore Creb. Use of the valuable houses near the future cable road has resuscitated the elevated railway project. There is a notable absence of the expansion of manufacturing plants common in former years. In general the volume of the compared to the decrease of the substance of the compared to the elevated railway project. There is a notable absence of the expansion of manufacturing plants common in former years. In general the volume of the compared to the elevated railway project. There is a notable absence of the expansion of manufacturing plants common in former years. In general the volume of the compared to the compared to the particle of the compared to the compared to the compared to the compa

will have their share in the prosperity, and receipts of merchandise alone, the decrease, business was greater during the past than in the former week, and, though prices remain without material change for seasonable merchandise, the extremely conservative course pursued by dealers leads jobbers to ment bonds is hard to predict. Whatever quarter of last year, nearly \$26,000,000 less expect a steadier demand after the time when the spring demand usually subsides.

Merchant Iron-Remains steady at market. If the demand for money on the 1882. Turning now to the exports, the total former prices, \$1.80 @ \$1.85, notwithstand capitalists in this country can get 5 or 6 % on specie, was \$26,112,470, which is a gain of tainty of uninterrupted manufacture by the mills upon which this market to a large extent depends for supply. No change is The total exchanges of 26 leading clear- total exports, exclusive of specie, are \$260,- presumed that the advance of \$1 2 ton made by some mills will be maintained in the near

Hardware,-The volume of trade in this line is large and the demand from the North \$254.840,135, a decrease of 7 %. The largest for the same period. The month of March, and Northwest is increasing. There is a large local demand for all kinds used in housebuilding and furnishing, and with the approach of warmer weather there is an active inquiry for Gasoline Stoves. The Simmons Hardware Company note an increasing demand for Bicycles.

Nails .- Prices are stationary. The gradual substitution of the Steel for the Iron Nail seeems inevitable, and the recent large increase of capital stock of a mill in the neighborhood is supposed to be in anticipation of necessity of a change of plant or additions to it for the manufacture of the Steel Nails.

Wire.—Bright and Coppered Market Wire is without change in prices, but is in some-what better demand. The anxiety of some mills to secure orders for Wire for barbing met and Hecla produces more this year than it did last, the general decrease may still be very considerable unless the price soon decided preference for discount by sellers. tories has passed and Wire mills show no intention of curtailing production. Indeed, it is remarkable that never before have so few of the Wire mills run so near steady double turn.

Barbed Wire.-The demand continues good, but not sufficient to cause a further advance, and prices for the unlicensed Wire (the bulk in this market) are considered at their highest for the season, with a probable decline of prices in keeping with prices of Plain Wire and a decreasing demand usual toward the approach of summer.

Scrap Iron-Is without material change either in prices or demand, although Good Machinery Cast is more inquired for.

Lead.—The weaker market referred to last week resulted in decline of prices on both Common and Refined of about \$1 2 ton, but trade is still in an unsatisfactory

Spelter.—As a considerable quantity is shipped to Cartridge manufacturers in the East, their business may affect the price on Spelter, which seems to be nominally at 4¢. mand has been going on, while there is a good demand for futures, but dealers are afraid to sell any because of the bardening facturers, at that price.

SELD E CARC TO !	
HOT BLAST CHARCOAL.	
Missouri Southern	\$16:00 @ 17,50 18,00 @ 19.00
COAL AND COKE.	
Missouri	16.00 @ 17.50 16.00 @ 17.50 19.00 @ 20.00
MILL IRON.	
Red-short	15.00 @ 15.50 15.00 @ 15.50
CAR-WHEEL AND MALLEABLE	IRONS.
Missouri Southern Ohio	16,00 @ 18,00 24,00 @ 26,00 24 (0 @ 26,00

Baltimore.

W. N. WYETH, Iron and Steel Merchant, 46 and 48 South Charles street, reports us the following, under date of April 13, 1885: The past week has been a very quiet one in trade circles, and the only business doing is

Ref. Bar Iron, 1 to 6 x % to 1. % b 1% @ 1 8-10e
" 1 to 4½ x 1½ to 1. % b 1¾ @ 1 8-10e
" % to 2, Round

R. C. HOFFMAN & Co., Pig and Railroad Iron Merchants, No. 21 South Frederick street, write as follows, under date of April 13, 1885: There is no material April 13, 1885: There is no material change in the Iron market. Demand is moderate, and for immediate use only. Prices remain unchanged. We quote as follows:

Trade Report.

New York Iron Market.

American Pig.-In all quarters a very light business is reported. Orders are confined to small lots, and even in these the demand is not up to the aggregate of former weeks. It is reported in some of the newspapers that there is a weakening tendency, notably in No. 2 Foundry. We have endeavored to trace these reports to some authoritative source, but are unable to confirm them. The furnace agents generally insist upon the figures quoted; we are unable to detect any greater pressure or larger concessions on the part of outside brands. We continue to quote standard brands of Lehigh and North River Irons, tidewater delivery, as follows: No. 1 X Foundry, \$18 @ \$19; No. 2 X Foundry, \$17 @ \$18; Gray Forge, \$16 @ \$17. The outside figure is asked for special brands. Outside brands sell for 50¢ @ \$1 less than our quotations

Scotch Pig -The market is quiet. Th war excitement in Europe is not looke upon as being liable to curtail the import of Scotch Pig to any extent. What ha been bought during the past year has been taken because a certain amount of Scotch Pig is absolutely needed by some found ers. Even if there should be an ad vance, the consumption, small as i is, is expected to go on. Nomina quotations for 5 and 10 ton lots are a follows: Coltness, \$21.50 to arrive; Gart sherrie, \$21 to arrive; Shotts, \$21.50 to arrive, \$22 from yard; Langloan, \$21.50 to ar rive, \$22 from yard; Carnbroe and Glengar nock, \$19 @ \$19.50 to arrive, and \$20.50 from yard; Summerlee, \$20.50 to arrive; Iron Dalmellington, \$19 @ \$19.25 to arrive; Eglinton, \$18 @ \$18.50 to arrive; Clyde, \$19 to arrive. For larger lots we quote, nominally, Coltness, \$21.

B-ssemer Pig and Spiegeleisen.-We hear of no transactions and quote nominally \$16 @ \$18 at mill for Domestic Bessemer Pig and \$25.50 @ \$26 for Spiegeleisen. The furnace of the Edgar Thomson Works is temporarily out of blast.

Bar Iron.-The market is in a peculiar position. Quite a number of small orders are being received, but many of the mills are anxious for business, and quotations fluctuate a good deal. Occasionally very low offers are being made for good Irons, and yet fair prices are paid for recognized brands. We quote for delivery here in round lots : Common Iron 1.45¢@ 1.6¢, and Refined Iron. 1.75¢ @ 1.9¢, store prices being 1.55¢ @ 1.8¢ and 1.85¢ @ 2¢ respectively.

Structural and Shaped Iron.-Although a number of large contracts are pending, no business of any magnitude has been closed during the week. Angles are selling in round lots at 2¢ @ 2.2¢, the lower figure being occasionally shaded, while Tees can be purchased at 2.25¢, delivered in round lots. Store quotations are 2.2¢ @ 2.4¢ for Angles and 2.4¢ @ 2.5¢ for Tees. American Beams and Channels are 3¢ from dock for all orders. Foreign Beams, in round lots, are quoted 2.5¢ @ 2.6¢ for Belgian, and 2.6¢ @ 2.8¢ for German, no recent business being reported. It is not believed that an advance in freights growing out of complications abroad would affect the ability of the importers to compete. At present freights from Antwerp are 12/. Even if they should go to 20/ the freight would be only .2# 78 1b.

Plates.—There has been some business in Steel Boiler Plates. In Iron Plates the busi ness is irregular from week to week, and prices depend upon the necessities of the individual mills. Usual prices of Iron Plates are as follows: Common or Tank, 2¢ @ 2.15¢; Refined, 21/2¢; Shell. 21/2 @ 21/4; Flange, 31/4; Extra Flange, 4¢ @ 4¼¢. For small lots of Steel Plates the quotations are as follows: Ship, 3¢ on dock; Tank, 21/4 @ 3¢ on dock; 31/4 @ 31/4 for Shell, 31/4 @ 41/4 for Flange, and 41/2¢ @ 51/2¢ for Extra Flange and Fire-Box.

Sheet Iron .- The spring trade thus far has been a severe disappointment, and there is a disposition to lower prices of the best makes which are beginning to feel the strain of the competition of inferior kinds We quote No. 24 2.9¢ @ 3.9¢, according to quality and finish.

Merchant Steel .- There is little doing. Quotations for the range from Ordinary to Good grades are as follows: American Tool Steel, 74¢ @ 10¢; Tool Steel of special grades and finer qualities, 12¢ (a 20¢; Crucible Machinery, 4.5¢ @ 6¢; Spring and Tire, 21/20 @ 30; Open-Hearth Machinery, 234¢ @ 34¢, and Bessemer Machinery, 21/2¢ @ 21/4¢; English Tool, 131/2¢ @

Steel Rails .- No transactions of any magnitude have been made, although there are unconfirmed reports affoat. Some of the mills show a disposition to demand better figures. There are inquiries in the market which will speedily test the question whether a higher range will prevail. Meanwhile we quote nominally, \$26 50 @ \$27 at mill. Some business has been done during the week in Steel Street Rails at private terms.

Steel Wire Rods .- There have been no Billets are worth \$32.50 @ \$35 at mill.

during the week.

lots at \$16, we hear of no transactions. We quote, nominally, \$16.

Scrap.-Spot stocks are very small, and are quite firmly held. We learn that a large Eastern mill, unwilling to come into this market, has purchased considerable supplies at New Orleans. We quote, nominally, \$18.50 @ \$19 from yard for No. 1.

Rail Fastenings.—There have been some transactions at private terms. Quotations for large lots are 2.6¢ @ 2.65¢ for Bolts and Square Nuts; 2.8¢ @ 3¢ for Bolts and Hexagon Nuts, and 1.65¢ @ 1.7¢ for Splice Bars. Railroad Spikes are quoted 1.85 @ 1.9¢, which is shaded for round lots.

Messrs. Ely & Williams, 480 Pearl street, Eastern selling agents of Brown & Co.'s "U.S." Bar Iron, have issued a circular quoting as follows :

8 CT	quoting an zonowo:
18	Rounds and Squares. Per D., cash
8.	34 in. to 2 in
10	2% in. to 3% in. 6% 5% in. 6% 6% 6% 6% 6% 6% 6% 6% 6% 6% 6% 6% 6%
d	7-16 in. to 5-16 in
8	Flat Bars.
18	1 in. to 6 in. x % to 1 in
n	134 in, to 6 in, x 134 to 134 in
h	Ovals.
-	56 in. to 114 in. 634 56 in. to 9-16 in
t	Half-Ovals and Half-Rounds.
ıl	56 in. to 114 in
8	Bands.
-	1 in, to 6 in, x 14 in, and 5-16 in
-	1 in to 6 in. x 3-16 in to No. 12
0	It may be of interest in this connection to add the following analysis of "U. S." Bar

Copper.....
Minute traces of other matter, loss, &c.....
Pure Iron Tensile strength exceeds 62,000 ₺ % square inch

Philadelphia.

Office of The Iron Age, 290 South Fourth St., (PHILADELPHIA, April 14, 1885.

Pig Iron.-The market remains in the ame dull and uninteresting condition as re ported for some weeks past, with but little prospect of change either for better or vorse. Sales are exceedingly slow, but deliveries on old contracts prevent accumulations on furnace banks and enable sellers to maintain their prices. The impression seems to be that consumption is quite equal to production, so that, even if there is a temporary falling off in sales, it will make no difference so long as consumption can be maintained. It would be more satisfactory, nevertheless, to see consumers coming forward with orders, but, as a matter of fact, there is an increasing disposition to postpone purchases to the latest moment possible. It might have been supposed that the events of the past couple of weeks would have a tendency to start up business, but it it has not done so, although most people see great possibilities in the near future. But in dealing with things as they really are there is no question that the de mand is slow and unsatisfactory, and prices at best not more than steady. Some grades are positively weak, but for such brands as are generally in demand the market may be called quiet and unchanged. What the ultimate outcome will be cannot be foreseen with anything like distinctness, but in the meantime no one seems like buying anything beyond what is required for use within the next 30 or 60 days. Sellers are anxious for business, but, as a rule, they are holding to firm quotations, although there are some exceptions, chiefly among those whose brands are not thoroughly established. Large consumers can do as well as, if not better than, at any time since the first of the year, so that if there is any change at all it is certainly not for the better. Sales during the week have been in small lots at \$16, \$17 and \$18. delivered, for the three grades of standard brands; 50¢ @ \$1 more for special brands and \$15, \$16 and \$17, ex-ship, for Alabama and Tennessee Irons.

Foreign Iron.-There is nothing doing n the way of new business for shipment Spot lots of 20 % Speigel sell at about \$26 and Ferromanganese at \$50 for 62 %, or \$72 for 80%. Bessemer is nominally at about \$19.50, asked, but there is no probability of business being done at that figure, except in very small lots.

Blooms. - Sample lots of Foreign Steel Blooms and Slabs are being called for, but prices are very little use without a precise statement of quality. Soft Basic Blooms may be quoted at from \$37.50 to \$39, according to analysis; Siemens Martins at \$9.50 @ \$10. from \$40 to \$42. Domestic Blooms are quoted at from \$31 to \$32, delivered, for Nail Plate and \$35 @ \$36 for Plate and Sheet Blooms. Other descriptions are extremely dull and offered at about as follows: Charcoal Blooms at \$50 @ \$52: Run-out Anthracite, \$43 @ \$44; Scrap Blooms, \$35 @ \$36;

Northern Ore Blooms, \$35. no change in prices, which range from transactions. We quote \$41 @ \$42. Wire \$26.50 to \$27.50, delivered, according to quality.

asking \$17.50. No business has been done be called dull and disappointing. Most of lar time. Not only is the demand light, but foot, net the mills manage to run from a half to two- prices are unremunerative; the latter is the Old Wheels .- Aside from sales of small thirds of their capacity, but that appears to most discouraging of the two. It is very evibe all the business that can be secured, and dent that Bessemer and Open-Hearth Steels even then prices are shaved down to cost. and in some cases below cost, if the article is what it is represented to be. There is attention to the making of Steel. This appears nothing in sight upon which to base any to be the age of Steel. The latest in this line definite ideas of improvement, although at this season improvement is generally expected, and, after such protracted dullness as we have had, it ought to come soon, if coming at all. Meanwhile prices are irregular, varying according to quality, quantity, specification of sizes, &c. Common Iron at 1.5¢ @ 1.6¢; good Medium at 1.65¢ @ 1.75¢, and strictly first-class Refined at 1.8¢.

Plate and Tank Iron.-Business has been slow and unsatisfactory for some time past, and as yet there are no indications of improvement. The demand is almost exclusively for small lots, and barely sufficient to keep the mills at work, even on the limited output of the past three months. Prices are unchanged, but on desirable orders concessions are made on the asking prices, which are as follows: Ordinary Plate, 2¢; Tank, 2¢ @ 2.1¢; Shell, 2.5¢; Flange, 3.5¢; Fire-Box, 4.25¢; Steel Plates, Flange, 3.5¢ @ 3.75¢: Fire-Box, 4¢ @ 4.25¢.

Structural Iron.-New business is extremely scarce, and during the week manufacturers have made very few additions to their former contracts. Inquiries are of a somewhat languid character, and at the moment the outlook is far from encouraging. Prices are unchanged, but on large orders could be shaded a trifle from the asking figures, which are about as follows: 2¢ @ 2.1¢. delivered, for Angles, 2.1¢ @ 2.15¢ for Bridge Plate, 2.3¢ @ 2.4¢ for Tees, and 3¢ for Beams and Channels.

Sheet Iron -There is only a moderate demand, but prices for the best makes are steadily held at about the following quota-

tions for small lots :
Best Refined, Nos. 26, 27 and 28 3146
Best Refined. Nos. 18 to 25 31/40
Common, 1/4¢ less than the above.
Best Bloom Sheets, Nos. 26 to 28
Best Bloom Sheets, Nos. 22 to 25 41/49
Best Bloom Sheets, Nos. 16 to 21 4
Blue Annealed 2.50
Sest Bloom, Galvanized, discount 60 %
Second quality, discount 621/9 5
Common, discount 65 %

Wrought-Iron Pipe.-There has been a little more doing during the past week, and on the whole a fair amount of business has been transacted, condition of the weather being taken into account. Here and there a good-sized order is reported, but in most cases the demand is for limited quantities for immediate use. There is a good deal of complaint among manufacturers concerning the low and unremunerative prices at present ruling, but it is difficult to see how an improvement can be brought about so long as business is competed for as sharply as it is at the moment. For small lots quotations are about as follows: Butt-Welded Elack Pipe, 45 @ 471/2 %; Lap-Welded Black, 65 @ 671/2 %; Butt-Welded Galvanized, 35 @ 371/2 %; Lap-Welded Galvanized, 45 @ 47½ %; Boiler Tubes, 57½ @ 60 %.

Nails.-The market is in pretty much the same condition as has been noted for some few weeks past. In a quiet way a considerable amount of Nails are being sold, and the market generally is reported steady at unchanged prices—say \$2.30 for Iron Nails in small quantities, with concessions of more or less importance on carload lots. Steel Nails are quiet at about \$2.40 @ \$2.45, according to quantity required.

Steel Rails .- There is more inquiry for arge lots, but it is difficult to arrange terms that would be mutually satisfactory. Sellers those who can meet these conditions expect sirable orders, notwithstanding the much lower quotations published in New York. Sales in this market during the week are all aid to have been at from \$27.50 upward narket steady.

week; holders are as firm as ever, but buyers are very reluctant to advance their bids. Sales have been made at \$18.50, delivered a short distance in the interior, with \$18.75 @ \$19 bid for deliveries in the vicinity of Pittsburgh. Nominal prices are \$17.75 @ \$18, Philadelphia, but there is nothing on the spot at the moment.

Old Material .- Prices are firmer, and with very limited supplies the tendency is toward higher figures. Quotations are about make Steel Nails, but it is intimated that as follows, with sales chiefly at the outside Chess, Cook & Co. and Zug & Co. will Sgures: No. 1 Wrought Scrap. \$18 @ \$19; No. 2 do., \$12.50 @ \$13.50; Horse Shoes, \$22.50 @ \$23; Turnings, \$13.50 @ \$14; Old Car Wheels, \$15.50 @ \$16; Old Steel Rails, \$15.50 @ \$16: Fish Plates, \$22.50 @ \$23: Cast Scrap, \$13.50 @ \$14; do. Turnings,

Pittsburgh.

Office of The Iron Age, 77 Fourth Avenue, PITTSBURGE, PA., April 14, 1885.

The most remarkable matter to note is the continued cold and unseasonable weather, and thus far the farmers in this section of Muck Bars.—There is a fair demand, but the country have made little or no progress 50%; Galvanized do., 40%; on Black Lapwith their spring work. In regard to the Welded Pipe, 11/2-inch and larger sizes, condition of the market for manufactured 671/2 %; Galvanized do., 50 %. On Selected

higher than \$17.25, while holders are still several weeks past, and, on the whole, may from being what it should be at this particuare largely taking the place of Iron, and even Iron manufacturers, will have to turn their is the Steel Nail, which, it is evident, is coming into general use. There is some talk of having the Western Nail Association have its headquarters at Wheeling the coming year. The next meeting of the association takes place at Wheeling, on Wednesday week, at which time the election of officers for the ensuing year will occur. In labor circles there has been nothing new developed the past week. It is expected that the 6000 Coal miners in the Monongahela Valley will probably generally get to work this week. As there is a good stage of water in the river for getting out Coal it is being shipped away about as fast as loaded. There is still a good deal of competition etween the Pittsburgh and Kanawha River operators for the Cincinnati market. and, while the former have the best quality of Coal, the latter have the advantage of a much shorter distance to transport, and then they are not subject to lockage.

Iron Ore .- Those of our brokers making a specialty of the Ore business report it as being slow, although all that can be expected in view of the depressed condition of the Iron trade. Some few pretty good-sized contracts have been made, but furnacemen. as a rule, are buying only as their immediate wants require. Latest advices from Cleveland report trade there quiet and prices unchanged. Freight from Cleveland to Pittsburgh, \$1.25 7 ton.

Pig from .- Commission men continue to make discouraging reports, aithough bu-iness is all that can reasonably be expected. The consumption is increasing somewhat, but it is far below what it usually is at this season of the year, and prices, instead of improving, are as weak as ever. There is still a good deal of hypothecated Iron on the market, some of which is being pressed, and while this continues there is not much show for any improvement in price. Consumers, as a rule, do not take well to this hypothe-

cated Iron, which consists of different qualities and brands-good, bad and indifferentbut they make use of the same in buying Iron with which they are familiar, and not unfrequently with success. Even for No. 1 city-made Irons, which always have the preference in our own market, prices have gone off from 25¢ to 50¢ % ton within the past few weeks. Quotations may be fairly

No. 1 Neutral Gray Forge. \$15.25 @ \$15.50, 4 mos. No. 2 Neutral Gray Forge. 14.50 @ 14.75, 4 *** All-Ore Forge. 16.00 @ 16.25, 4 *** All-Ore Forge. 16.00 @ 16.25, 4 *** No. 1 Foundry 17.00 @ 18.00, 4 *** No. 1 Foundry 17.00 @ 18.00, 4 *** No. 2 Foundry 17.00 @ 16.50, 4 *** Cold-Blast Charcoal 25.00 @ 27.00, 4 *** Bessemer Iron. 17.50 @ 17.00, 4 ***

given as follows:

It requires best brands to bring outside quotations. It is said that Bessemer Iron has been sold as low as \$17, cash. It is not likely that furnace companies will be able that has not been mentioned in the last two to declare very large dividends at the prices above quoted.

Muck Bar .- There appears to be no demand whatever; quoted nominally at \$27, cash, but could no doubt be bought for \$26.50.

Manufactured Iron.—There is no improvement in demand, and, while hopes are entertained that there soon will be, the outlook is not particularly encouraging. How ever, the advent of some good, seasonable weather, which cannot surely be much require strict cash or its equivalent, and longer delayed, may place a very different aspect on the outlook. There is sometimes to place their orders at figures below what a very sudden and unexpended change for usually asked. Small lots are quoted at the better, and such a thing is not improbfrom \$27.50 to \$28 at mill, and \$27 is said to able within the next few weeks, although be a very inside rate for even the most de- the indications at present do not point very strongly in that direction. We continue to quote prices-that is, for first-quality Ironon a basis of 1.65¢ @ 1.75¢, 60 days, 2 % off, for Bars. But very few, if any, of the mills are running full; many are only working nothing.

> Nails .- There has been no change in the situation during the past week. Iron Nails continue very dull for the season, and the demand for Steel Nails is hardly as brisk as it was a month ago. Prices remain unchanged at \$2.25, 60 days, 2 % off for cash, and a rebate of 10¢ & keg on carload lots and upward. Thus far Shoenberger & Co have been the only firm in Pittsburgh to shortly commence to make the same. looks very much at present as if the Steel Nail was destined sooner or later to supplant

Wrought-Iron Pipe.-There has been little or no change in the situation since our last report, although manufacturers expect an improvement with the advent of more seasonable weather. No change in prices, which, it is believed, are as low as they are likely to go. There is no room for any further cutting. Discounts on Black Butt-Welded Pipe, 114-inch and smaller sizes, Old Rails.—Old Rails are not as strong as they have been. The best bids do not go terial change from what it has been for trade does not improve much, and it is far quoted. Two-inch Oil-well Tubing, 10¢ % price as carload lots in this market, but

foot, net; 5%-inch Oil-well Casing, 36# 39

Steel .- For the highest grades of Steel the demand continues, but mills making Open-hearth and Bessemer Steel are pretty well employed. Some of the latter have all they can possibly do. Best brands of Refined Cast Steel remain unchanged at 9# 13 15 Crucible Machinery, 436; Open-hearth, 36 Nail Slabs,\$ 29.50 @ \$30 P ton, delivered on cars at works of maker.

Steel Rails.-No sales have been reported here recently, in the absence of which we continue to quote nominally at \$27, cash, on cars at works. As but few new railroads are talked of, the outlook is not very encouraging, and in addition to a light demand there is little or no margin for profit at the price. There is a report in circulation of some Western road which intends to take up a ot of 10,000 tons that have been down but little over two years, and hold the makers, who guaranteed the same for five years, for the

Old Rails-Continue scarce, and for mmediate delivery prices are firm, notwithstanding the demand is not pressing. The most of the inquiry appears to be from conumers in the Shenango and Mahoning val-For immediate delivery Old Iron Rails are quoted at \$20 @ \$20.50, and Old Steel at \$17 @ \$18. Owing to the continued cold weather there have been but few Old Rails taken up as yet.

Railway Track Supplies .- The demand for everything in this line continues light for the season, and the prospect for an early improvement is not very bright. Spikes are quoted at 1.9 @ 2¢, delivered; Splice Bars, 1.6¢ @ 1.7¢; Track Bolts, 2.35¢ @ 2.4¢ with Square and 2.5¢ @ 2.6¢ with Hexagon Nuts.

Crop Ends .- There is considerable inquiry for Steel Rail Ends, and in this market they are very scarce; quoted, in the absence of sales, at \$18.50 @ \$19; Steel Bloom Ends, \$17.75 @ \$18.

Scrap.-There is rather more doing, but prices remain unchanged. No. 1 Wrought \$17 @ \$18, net ton, outside figure for selected; Wrought Turnings, \$13 @ \$15; Old Car Axles, \$24 @ \$25; Cast Borings, \$11 @ \$12, gross ton; Old Car Whee!s, \$16 @ \$17.

Coke. - Blast-Furnace remains unchanged at \$1.20 19 ton, free on cars at ovens. Furnacemen complain at the increased cost of Coke, but Coke men say that at the price now ruling there is very little margin for profit.

Window Glass .- Trade continues dull, out manufacturers are hopeful of an improvement later on in the season. Prices remain unchanged.

Chicago.

Office of The Iron Age, 36 and 38 Clark St., | Cor. Lake St., Cuicago, April 18, 1885.

Hardware.-There is nothing new that can be added to the statement regarding the Hardware market for the week under review reports. Jobbers have all that they can attend to, and report that their business is running along in a very smooth and satisfactory condition, so far as demand goes. The implements most serviceable at this season of the year are having the largest call. There is an increased demand for Builders' Hardware, Carpenters' Tools and Axes. Inquiries for Tin Plate Roofing are in advance of desire to purchase, though taken with a view of posting on quality and price. Lumber merchants report heavy sales and active demand, and from all appearances building interests throughout the West will be considerably in advance of what they were last year, which gives great encouragement to the Hardware merchant and causes him to feel more liberal in buying goods. Prices continue fairly steady, with the usual amount of cutting on special articles for the purpose of obtaining new customers for the respective houses. The concessions that are being made at present are said to be chiefly upon the basis of competition, and not with Old Rails. - There is no change from last half time, while others again are doing a view of further reducing prices, which are now much below remunerative figures on many of the articles sold by jobbers in Hardware. Barb Wire .- There is no change in the

condition of the Barb-Wire market. Jobbers are contending with the difficulty of obtaining Two-Point Wire, which seems to be their only complaint at the moment. An inquiry for Two-Point Wire at one of the largest jobbing houses in this city during the week brought out the statement that they had but 10 Spools of that class of Wire in the house, and orders had to be taken subject to their ability to obtain it from the factories. We renew our quotations on Painted the Iron article, although people are not yet Four-Point, 31/4; Four-Point Hog Wire, fully convinced that the former is superior 41/4; Two-Point Cattle Wire and Two-Point Hog Wire, 41/6, with 1¢ additional for Galvanized, and 16 18 lb less in carload lots on both classes. Prices regular and firm, and cheap Wires and on Specials from $\frac{1}{2}\phi$ to $\frac{3}{2}\phi$ higher than quotations.

b se sti ec sti

Nulls .- The greatest activity in the Nail market is for Steel Nails, the demand for which is considerably in excess of the ability of some of the jobbers to supply, while others handling a different make of Nails do not report their demand quite so favorable. The call for Iron Nails during the week was not quite so strong as several goods, there has been no important change Pipe, or Pipe cut to specified lengths, the dis36¢ P

1885

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strict inquiry fails to confirm this report, and, while Iron Nails are not so firm as might be desired, it is doubtful whether any concessions have been made. Quotations lots, and \$2.30 in small lots from store, on Iron Nails, with 5¢ advance on carload lots for Steel Nails, and 10¢ advance, in a small way, for some sizes. The meeting of manufacturers last week, which adjourned without taking any action on the price of either Iron or Steel Nails, has not improved the situation that has characterized the market for several weeks.

Ore .- The Ore market has been exceedingly quiet during the week in this city. Some few inquiries for large lots were made, but buying has been under protest and chiefly in a small way. No change has been noted in prices quoted heretofore, which seem to be a fair market value.

American Pig Iron .- The market for Pig Iron continues to be slow and uninteresting. Sales agents make their usual trips through the country, and return with the stereotyped reports that they have sold a carload to this man and a carload to the other, and at the same time state that the parties who purchased those carlots were in position, according to their own interests, to buy anywhere from 1000 to 3000 tons, which would not be more than a six months' supply. This about indicates the manner in which all business transacted is brought about. Buyers are unwilling to place orders for anything beyond immediate necessity, and no reduction in price or persuasion on the part of the seller can induce them to change their minds. The buyer makes no effort to reduce prices; he merely states that he wants so much Iron, and sales agents seek the purchaser, and in their efforts to obtain the order make prices which they think will not fail to be acceptable, disregarding all market value, their only object apparently being to get rid of the Iron. But, after all, this sacrifice does not avail them, as they cannot rely upon baving secured a new cus tomer, because the same course is pursued with each order they place. There are a number of makers of Iron who stand aloof from this catch-order system; they name their price, and unless they can obtain the figure they prefer keeping the Iron. Upon this class of trade we quote as follows: Lake Superior Charcoal, Nos. 1 and 2, at \$20, and No. 3 at \$20.50; Nos. 4. 5 and 6, \$22 @ \$22.50, but no demand. All-Ore Coke Irons continue to be held at \$19, and Cinder Mixed at \$18; Ohio Standard Black Bands are perhaps a trifle weaker, but quotations are upchanged at \$20; No. 2 Southern is quoted at \$17, and No. 3 at \$15; Southern Mill at \$14, with a slightly better demand for the latter grade. One of the Southern furnaces during the week offered to sell 300 to 400 tons No. 3 Foundry at \$15.75, four months, but was unable to find a purchaser at this figure. There are several furnaces selling Iron for less, and, so long as quality need not be considered, the cheaper Iron will have the greater sale. Through reports received from numerous consumers in the West, it is the opinion is general that Iron will advance, but they do tinues to prevail throughout the entire South. not propose to place their orders until they are entirely satisfied that a change is imminent. It is also positively stated that they have no stock, their yards are empty, and,

tity, 3 \$ discount for cash in 30 days equal to about 7 1/4 at mill, Pittsburgh. He states that it is utterly impossible to sell a good grade of Tool Steel in this locality that would be necessary to compete with this figure, as makers who are selling Steel at this figure cannot possibly meet the price and sustain the quality. In other respects trade in this market is about the same as before reported. Tool Steel is quoted 8¢ @ of, and other classes at about the same figure as last stated.

Steel Ralls .- We continue to quote \$29 @ \$30 for Heavy Sections; Light Sections, \$35 @ \$37. No demand for either and no interest in the business. There are still a few inquiries made, but we cannot learn that any of these inquiries develop into a business beyond the small-lot orders.

Nothing new has occurred in the market for can learn, at 1.7¢, from store, and 1.5¢ @ and sellers at almost any price that can be

Structural Iron.-More activity has been displayed in the Structural Iron market during the week. Orders continue to be small. but inquiries are more numerous and building operations are looking up very rapidly. Several large office buildings having been to be on the alert. We continue the fol-lowing quotations: Beams and Channels, \$3.10; T-Iron, \$3; Angle Iron, \$2.50; Flitch Plates, \$2.50; Frieze Plates, \$2.70; 1/4 @ 1/4 is added for delivery from

lews on Best Refined grades from store: Nos. 8 to 14 at \$2.50 @ \$2.60; Nos. 15 to 17 at \$2.80 @ \$2.90; Nos. 18 to 20 at \$2.80 @ \$2.90; Nos. 22 and 24, \$2.80 @ \$2.90; Nos. 25 and 26, \$2.90 @ \$3; No. 27, \$3 @ \$3.10.

Old Wheels. - The market for Old Wheels from the North. continues steady at \$14.50 @ \$14.75. Where it is possible, Old Wheels are taken in preference to Pig Iron, and can be obtained, as a rule, from 50¢ to \$1 \$9 ton less than the same grade of Iron can be furnished in Pigs.

Scrap Iron.-There has been considerable inquiry for Scrap Iron during the past week, but mills do not seem to be pressed for stock, and are therefore offering a less price than is acceptable to the dealers. No. I Mill is quoted at \$14, and No. 2 at \$9, Milwaukee. No. I Forge is held at \$18 by dealers, who report a better demand than a week ago. We make the following quota-We make the following quotations as dealers' purchasing price: No. 1
Wrought Scrap, P net ton, \$14 @ \$15;
Cast_Scrap, P net ton, \$12; No. 1 StovePlate Scrap, P net ton, \$9; Wrought
Turnings, P ton, \$9; Cast-Iron Borings, \$7;
Old Play Steel \$0. Tool Steel \$0. Tool Steel Old Plow Steel, \$9; Tool Steel, \$\beta\$ ton, \$15; Locomotive Steel Tire, \$\beta\$ net ton, \$14; Buggy Springs, \$\beta\$ net ton, \$14; Malleable Scrap, \$7.

Chattanooga.

Office of The Iron Age, Carter and Ninth Sts., CHATTANOOGA, April 13, 1885. Cold and disagreeable weather still con-

The farming business through this district is far behind what it usually is at this time some of their extra trains which they arrives they will continue transact their business on the car-lot principle, and not accept contract orders on an advancing market. The feeling that charact terizes the market is not one of despondency but more of weariness, caused by the monotonean position that the market has held during the last three monotian. The probabilities of an improvement are encouraging but the time of its occurrence is a question of doubt upon which all men are conjecturing without participal as a satisfactory or contained to their off doubt upon which all men are conjecturing without arriving, at a satisfactory orders for he week is reported steady for local domand a small lots for the common grades of 70 and Machinery Steel. In specialties an active transact the reported by the reported steady for local domand a small lots for the common grades of 70 and Machinery Steel. In specialties an active transact the reported by the reported steady for local demand of the reputable brands of Tool Steel ing at 8.6 ½ 11. In probable to the special bear of the reputable brands of Tool Steel ing at 8.6 ½ 11. In probable the special point, which was a single orders of the reputable brands of Tool Steel ing at 8.6 ½ 11. In probable the special point, which was a single orders of the reputable brands of Tool Steel ing at 8.6 ½ 11. In probable that the more are the special point, which was a single orders of the reputable brands of Tool Steel ing at 8.6 ½ 11. In probable brands of Tool Steel ing at 8.6 ½ 11. In probable brands of Tool Steel ing at 8.6 ½ 11. In probable brands of Tool Steel ing at 8.6 ½ 11. In probable brands of Tool Steel ing at 8.6 ½ 11. In probable brands of Tool Steel ing at 8.6 ½ 11. In probable brands of Tool Steel ing at 8.6 ½ 11. In probable brands of Tool Steel ing at 8.6 ½ 11. In probable brands of Tool Steel ing at 8.6 ½ 11. In probable brands of Tool Steel ing at 8.6 ½ 11. In probable brands of Tool Steel ing at 8.6 ½ 11. In probable brands of Tool Steel ing at 8.6 ½ 11. In probabl of the year, and further south cotton plantprobably keep them idle until about the 1st of June, when they will add their product of 'Southern Irons" to the market. The preliminary work for five more large blast furnaces is being perfected, with quite a certainty that two of them at least will successfully materialize. Bishop McKelden's prophecy, made 150 years ago, that "westward the course of empire takes its way," can soon be changed to "southward the march of industries are taking their flight."

inquiries are not unfrequent from other of its quality, price, freights, &c., but the day is hardly in sight yet when we can continues steady and firm at \$17.50 @ export our Iron to any great extent. There

figure quoted. Old Steel Rails are held at which are sufficient to take the entire ample; what we want is simplification. continue to be \$2.25, 2 %, 60 days, in carload \$13, the demand being light, with more product of the furnaces. While the West is stock on hand than was reported last week.

Bar Iron.—Jobbers in Bar Iron report a good trade for the week. Best Refined consome round lots are being placed in these tinues to be quoted at 1.8¢ rates from store, markets. Demand from the Southern founand mill price 1.7¢, the same as heretofore. dries continues good, especially those in our immediate vicinity, which are melting from Common Iron, and prices are, so far as we 50 to 100 tons per day. [In the Chattanooga report for last week the types stated that 1.6¢ from mill. The latter grade of Iron is the amount of Pig Iron under contract for not firm at any figure, and there are buyers Northern delivery was about 1100 tons. It should have read about 11,000 tons.]

Hardware.-The demand for Hardware still keeps good, and we note that a large concern will open a large and exclusive wholesale stock on the 1st of the coming month. It is their intention to cover the entire demand for both Heavy and Shelf Hardware, and to sell exclusively to the trade. Their placed under contract during the week has enterprise can hardly be otherwise than succaused the makers of Beams and Channels cessful, as they are men of long experience to be on the alert. We continue the foland Nails has continued good, taking the full capacity of the mills.

Coke-Continues to be an object of consideration among the furnace owners, not Galvanized Iron.—There having been no developments for the week in this class of the wines the quality is not satisfactory, for which, however, there is but little ex-Iron, we continue to quote as follows: cuse. The rapid development caused by the Juniata, discount, 60 %; Charcoal, 60 and 5 %; Refined, 60 and 10 %. Black Sheets-The market is quiet and hands, has put on the market a large amount some weakness in price displayed on the part of manufacturers. We quote as fol-changed, and a much better article will soon be on the market.

> Railroad Supplies, such as Spikes, Fish-Plate, Bolts, &c., are in fair demand, which the works are hardly able to supply, and we learn of quite large quantities being brought

Cincinnati.

APRIL 13, 1885 .- Pig Iron .- In all essential features the market remains as last reported. The expectations of dealers have not been features the market remains as last reported.
The expectations of dealers have not been realized; consumers continue to limit their orders to immediate wants, except in a few cases where the foundrymen have closed contracts to supply castings in the future at very low figures. Since the 1st of the month the output in the territory quoted is in excess of consumption, but this will not affect the generally steady prices. It is reported that Southern furnacemen are in the frent to obtain better prices than have prevailed thus far in this year, as their expersioned is said to be that ro wroth the control of the frent to obtain better prices than have prevailed thus far in this year, as their expersioned is said to be that ro wroth the frent to obtain better prices than have prevailed thus far in this year, as their expersioned is said to be that ro wroth the frent to obtain better prices than have prevailed thus far in this year, as their

No. 1	18.50 @	19.00	1
Tennessee, Alabama and Georgia,			Ι.
No. 2	17.00 @	17.50	1
COKE FOUNDRY.			Ι.
Ohio and West Pennsylvania, No. 1	18.00 @	18,60	
Ohio and West Pennsylvania, No. 2	17.00 @	17.50	
Virginia, Tennessee and Alabama,			1
No. 1	17.00 @.	17.50	Ι.
Virginia, Tennessee and Alabama,			,
No. 2	15.50 @	16.50	
SILVER-GRAY SOFTENERS	8.		1
Hanging Rock (Jackson County),			
No. 1	18.00 @		
No. 1			1
No. B1	17.00 @	17.25	
Hanging Rock (Jackson County),			1
No. 2	16,50 @	17.00	Г
Hanging Rock (Jackson County),			1
No. 8	15.50 @	16.00	ľ
Other makes, Nos. 1 to 3	15.75 @	14.0C	
CAR-WHEEL.			
Hanging Rock, Cold Blast Charcoal	25.00 @	27.00	
Virginia, Cold Blast Charcoal	27.00 @		l,
Warm Blast Hanging Rock	21.00 @		1
Warm Blast Alabama	24.50 @	25.50	1
FORGE.			1
Charcoal	18.00 @		1
Coke and Stonecoal	14.50 @		1
			1
The above quotations are fo			1
f.o.b. here, or 50¢ less for cash.			
deliveries from furnaces, less t	he freig	ht to	6

wery favorable organization, and will, of course, add materially to the output of Bar depend on it. Nails are about the same as fron. Some two or three of our furnaces at last writing. Both Iron and Steel are are undergoing thorough repairs, which will quite active, but at a difference not suggested by late "resolutions in meeting," whose influence on an open competing market do not often amount to much, no matter how unaminously they are passed. Wire.—A good demand for Barbed Wire continues. though it has somewhat lessened since the fence-building farmer has betaken himself to the plow and is busy putting in his crops.
This is well eventually, but makes dull times now. Plain Wire is active, and, owing to pressure on mills for immediate deliveries, stronger in price. Specially low quotations have been for the most part withdrawn.
Builders, Hardware is reasonably brick. Pig Irea.—To such an extent has "Southern Iron" obtained notoriety that inquiries are not unfrequent from other lands than our own requesting information of its quality, price, freights, &c., but the eyond the small-lot orders.

Old Rails.—The market for Old Rails

\$18.50, according to the necessity of the buyer. There are very few offering, and those who have stocks demand the highest contains. There is no scarcity of orders, required for one's health. The discount is required for one's health. The discount is required for one's health.

GEORGE H. HULL & Co., of Louisville, report to us as follows, under date of April 13, 1885: The market for Pig Iron during the last week has been quiet, with very few sales. This condition seems to result from buyers having all they need for immediate use, and not from any want of confidence in prices. Stocks at furnaces are light, and there seems to be no immediate prospect for any change, though if the present dullness should continue for two or three months, as against the additional amount of Iron being produced, it would be very apt to have its effect upon the market. We hear of large sales and better demand very apt to have its effect upon the market. We hear of large sales and better demand from St. Louis and vicinity, but the market here is not as good as it was one month ago. We quote for cash in round lots as below:

IMPORTS.

The following were the Imports of Hardware, Iron, Steel and Metals into the Port of

New York for the week ending April 15, 1885: ending April 15, 1885;
Pierson C. L. & Co.
Silico spiegel, cs., 30
Stetson Geo. W. & Co.
Pig. tons, 250
Williamson. Jas. & Co.
Pig. tons, 200
Wood, Niebuhr & Co.
Wire rods, coils, 187
Order. Biddle C. M. & Co.
Case, 1
Bloomfield J. C.
Mach'y, case, 1
Boker Hermann & Co.
Hdw., cutlery and
guns, pkgs., 47
Colborn Mfg. Co.
Mdse, css. 9 Wire rods, coils, 187 Order, Rods, coils, 10,525 Wire rods, pgs., 1160 Ore, tons, 305 Rods, pkgs., 630 Plates, 150 Steel. Abbott, Jere & Co.
Packages, 25
Cases, 60
Baring Bros. & Co.
Rods, bdls., 3628
Wire rods, coils, 14,607
Belcher H. W.
Cases, 24
Boker Carl F.
Cases, 9
Dolge A fred,
Cases, 3
Mdsc., cs., 2
Hunt J.
Strips, bdls., 37

Strips, bdls., 37 Moss F. W. Moss F. W. Bund'es, 47 Bars. 20 Maitland, Phelps & Co. Cases, 160 Cases, 160
Naylor & Co.
Rods, 8610
Tires, 16
Wire, cks., 10
Wire, bdls., 100
Rankins, G. E. Case, 1
Schovering, Daly & Gales,
Mase., cs., 5
Guns, case, 1
Steglich & Baese, Cases, 24
Temple & Lockwood,
Bars, 16
Bundles, 10
Case, 1
Wagner W. F.
Packages, 241
Order, Cases, 4
Waefalaer L.
Nails, kegs, 35
Wiebusch, Hilger & Co.
Hdw. & razor hones,
pkgs, 26
Windmuller & Roeiker,
Arms. cs. 13 Order, Rods, 9126 Bundles, 49

Arms, cs., 13 Witte John G. & Bro. Mdse., cs., 28

10 were as follows:		
	Quantity.	Value.
Brass goods	42	\$3,965
Bronzes		1.184
Clocks	. 28	2,599
Copper		· 2H3
Cutlery.	. 81	25,187
Gas fixtures		763
Juns	. 57	10,580
Hardware		1,189
Iron, pig, tons	1,588	26,205
Iron, sheet, tons	15	1,199
Iron ore, tons		853
Iron, other, tons	195	9,607
Lead, pigs	1,582	4,937
Machinery	178	5,684
Metal goods	. 421	39,403
Needles		6,713
Old metal		8,658
Ore	. 8	1,368
Pins	. 18	2,057
Platina		18,258
Platedware	9	2:22
Plumbago	. 8	260
Regulus antimony	. 10	227
Saddlery	. 40	4,210
Steel	83,845	52,820
Steel blooms	392	7:29
Spelter, D		862
Tin, boxes	45,518	180,778
Tin, slabs, 3,413; 1b		69,306
1874-00	9.77%	4 9.40

The following is a comparison of the imtwo years:

 Steel, pkgs.
 603,012

 Tin, bxs.
 485,616

 Tin slabs.lbs.
 4,187,128

EXPORTS.

The following list embraces the Exports of

Cutlery, cs. 2 80

Hamburg.

Clocks, pkgs. 78

Cutlery, cs. 2 80

Mr. iron, pkgs 21 123

Fulm, gals. 3350 361

Hamburg.

Clocks, pkgs. 78

Cutlery, cs. 2 80

Rivets, pkgs. 8

Babbitt metal, boxes. 3

Steelrails. 5

Bdw. 18 | Limports and Exports | Limports | Limpor

Scales, cs ... 12 540

Glasgov.
Mach'y, pkgs. 5 381
S. m. needles,
case ... 1 1,302
Saws, cs ... 6 15
Clocks, pkgs. 18 250
Ag.imp. pkgs 182 1,443
Sew. mch., cs. 133 3,518
Hdw., cs ... 3 88
Hdw., cs ... 3 88
Liverpool.
Ag. imp. pkgs 481 10,734
Cop. matte,
bags. ... 25,093 129,150
Yellow metal
sheathing, cs 17 1,342
sheathing, cs 17 1,342
sheathing, cs 17 1,342
plim., gals. ... 333 450

| Ac. imp..pkgs 481 10,734 | Cop. matte, bags ... \$5,093 129,150 | Yellow metal sheathing.cs 17 1,242 | Sew. ma., cs. 211 3,329 | Clocks, bxs. 503 16,822 | Mf. iron, pkgs 4 60 | L. c. freezers, pkgs ... 5 136 | Copper ore, bags ... 5730 17,000 | Mach'y, pkgs. 67 | Sarloss, cs. 16 | Springs, case. 1 90 | Karleverp, Mach'y, pkgs. 67 | Sarloss, cs. 16 | Springs, case. 1 90 | Copper, pigs. 267 | Copper, pigs. 277 | Copper, pigs. 278 | Copper, pigs. 277 | Copper, pigs. 278 | Copper, pigs. 279 | Copper, pigs. 287 | Copper, pigs. 297 | Copper, pig

British West Indies. Central America.

| Printish West Indies. | Pilm., gals. 21,756 2,466 | Mf. iron, pkgs 4 | 47 | Nails, bxs. 20 | 69 | Nails, kegs. 6 | 18 | Cocks, cs. 4 | 48 | Cocks, cs. 5 | 49 | Cosks, cs. 6 | 18 | Cosk

 4m Africa.
 Mf. fron, pkgs. 73
 788

 Ag. imp., pkgs. 1
 30
 Mach'y. pkge. 1
 100

 Nails, bxs. 24
 102
 Mach'y. pkge. 1
 100

 Ptlm., gals. 11,000
 1,740
 Ptlm., gals.200,025
 19,036

 Hdw., pkgs. 110
 1,167
 Ptlm., gals.200,025
 19,036

 Inc. s. 340
 1,035
 Clocks, cs. 40
 248

 Ag.l.imp., pkgs. 131
 649
 Ag.l.imp., pkgs. 131
 649

 Ag.imp., pkgs. 212
 5,275
 Car wheels
 50
 283

The American Cutlery Company, Chicago, are adding a silver and nickel-plating estabports of leading articles since January 1st for lishment to their works, which will have a Iskment to their works, which will have a capacity of about 200 steel knives a day and employ about 40 additional men. This branch of their works will be started within a week or 10 days, as they have sufficient unfinished goods on hand to keep them run-10,274 ning for several months,

Trade Report.

General Hardware.

Trade remains moderate, manufacturers and dealers alluding to its limited volume and its still more upsatisfactory profits. Prices are in the main unchanged, so far as quotations are concerned, but while in some lines there is a stiffening, owing in some ases to a reaction from unremunerative fidence that existing values will be main That limited quantities of goods are carried by manufacturers, jobbers and retailers is one of the gratifying facts in the situ ation, while the care exercised by the trade in making and buying goods, and the generally sound financial condition, are other hopeful indications.

NAILS

Generally the demand has been very slow and in the aggregate the amount of business done has been small. Some of the manu facturers note a slight increase in the orders from near by points and from localities now open to navigation, but on the whole the country trade is still very backward. There are sail dealers who have not disposed of their stocks of Nails bought when they were very low. On the other hand low propositions by buyers are often rejected, manufac turers oeclining to meet figures which they claim are below cost. It must be conceded that the makers have borne remarkably well the strain of long dullness, due to a backward season and to resales of cheap Nails. The result of the course of events during the period following the advance has been that what stocks there are are being carried almost entirely by manufacturers, the distributing and retail trade being practically bare. This fact must be taken into consideration when discussing the question of stocks, which may thus appear more ample than in reality they are. We shall at an early date be able to place before our readers the results of a very extended inquiry into the prospects of the building trades throughout the country, the result of the returns of over 4000 correspondents The export trade is quiet. Some round lots have been placed at small concessions from prices for the domestic trade. Manufac turers' agents quote large lots of Iron Nails at \$2.20, and Steel Nails \$2.30. On the former figure concessions are made by outside seilers for desirable orders. Quotations for small lots from store remain without change at \$2.30 @ \$2.35 for Iron and \$2.40 @ 2.45 for Steel Nails. There is some complaint that the lines between large and small lots are not as sharply drawn as they should be

BARB WIRE.

The market has continued dull and com pe itien is active. Some of the manufacturers note a falling off in orders, which appears to indicate the granting of con-We quote cessions on the part of others. for carload lots of Galvanized Four-Point Barb Wire, 4.75 cents to 4.8 cents, and for small lots 5 cents to 5¼ cents. The Iowa Barb Wire Company, of 93 Reade street, have begun the manufacture of Black and Galvanized Staples.

The action of the American Screw Company in reducing their quotation on Screws, and the subsequent revising of list prices and increase of discounts by the Russell & which we called attention in our last issue, was regarded by the trade with much interest. But the announcement which we at the same time gave to the trade of a still fur-Dayton Screw Company, by which their quotations would be considerably lower than issued, giving, it will be seen, their prices conceded that inducements in price

DAYTON, OHIO, April 9, 1885. Our price list of Wood GENTLEMEN: Screws, adopted January 15, 1885, will remain unchanged, but until further advised our discounts will be as follows:

Flat Head Iron Screws.
Round Head Iron Screws.
Flat Head Brass Screws.
Round Head Brass Screws.

For Flat Head Blued 21/2 per cent. will be added to the net amount of invoice. Discounts subject to change without notice. All orders received subject to our ruling prices at date of shipment. All orders will received subject to the amount of our production, and will be executed as promptly as our facilities will admit. We shall continue to use the best grades of American Charcoal Iron Wire, and guarantee the superior quality of our goods, as heretofore. favors, we remain, yours respectfully,
DAYTON SCREW COMPANY.

At these discounts it was seen that the Dayton Screws were considerably lower than Dayton Screws were considerably lower than those of the other companies, and the trade in now generally satisfied and will buy libercanvassing the situation awaited with interest developments as to how this action stick, while those not friendly or not able would be met, or whether it would be met at all by any further concession. Many expressed the opinion that it would be disregarded and the Dayton Company allowed to garded, and the Dayton Company allowed to no case will we undersell their lowest rebate peater, to which we shall direct the atten-

by us our discounts and terms for Wood Screws will be as follows, from our revised list prices of April 1, 1885 :

Flat Head Iron... Round Head Iron. Flat Head Brass... Round Head Brass

We invite comparisons as to quality and finish, and tests as to strength. All unfilled orders and parts of orders in excess of our ability to execute from our stock on hand rices that have prevailed, in most lines the market is weak, and merchants place orders, except for immediate demand, without concept for immediate for immediate demand, without concept for immediate for immediat circular. All orders subject to our ruling rates at date of shipment. Terms, cash. prices guaranteed. Yours respectfully, prices guaranteed.

RUSSELL & ERWIN MFG. Co. The other manufacturers who have hitherto thus far acted in concert with the Russell & Erwin Mfg. Co. do not generally follow them in announcements of the adoption of this exhowever, issued a circular giving the same understood that these prices are made for the protection of their own customers, and not for indiscriminate trade.

From this statement it will be seen that the Screw market is in an extremely unsatisfactory and unsettled condition. The three prominent parties in the fight-for so the trade are disposed to regard the affair—have three different lists and three different discounts. The other companies, while not making public announcements of their prices. are doubtless influenced by the action of their competitors, and probably prepared to take care of their customers on as favorable terms as business considerations will justify. But as giving a synopsis of the prices of Screws at present offered by the American, Russell & Erwin and Dayton, the following table will be of interest. It gives the net prices of 10 gross of Fat Head Iron Screws of the representative sizes named, at the announced dis counts of the respective companies :

Size.	American. Dis. 80 & 10.	Dayton. Dis. 50.	
14, No. 2		\$0.55	\$0,48
36. No. 4 12. No. 6	.74	.60	.49
%, No. 7 %, No. 8	.77	.65	.562
No. 9 1, No. 9	.864	.75	.57 .59 .72 .76 .84
No. 10	1.08	.80 .85	.76
134, No. 10 No. 11	1.18	1.00	.89
11/6, No. 11 No. 12	1.35 1.46	1.10 1.20	1.00
2, No. 14	2,09	1.75	1.55

It will be seen that the circulars of the two companies given above in which the low prices that agitate the trade are made, are both cerefully guarded in their phraseology. The opinion is expressed by many that only moderate orders, and from the customers of the respective companies, will be accepted at the prices named It is conceded by all that these extreme prices are very low, and many parties intimate that they would be pleased to be able to place orders at such figures. In the present condition of things, in which personal feeling apparently overrides considerations which usually prevail in business transactions, it is, of course, impossible to predict what the next development will be. It is possible that some of the companies may be disposed to cut still deeper, but the probabilities are that Screws, at the low figures named above, would be an advantageous purchase.

TACKS. There has been no special change in the situation since our last report. The reduc-Erwin Mfg. Co. and other companies, to tion in price by the Central Company is regarded with satisfaction by the trade, who naturally like to purchase the goods at low figures, and have been dissatisfied because the goods have been held at what they have ther cut in price about to be made by the regarded as unreasonably high prices. The outside makers realize that it is going to be Their object in making this article is to harder to sell their Tacks than it has been those of any of the other companies, was an heretofore, as there cannot be as broad a cheaper makes which they do not meet in Fence Pickets. The whole volume is a very those of any of the other companies, was all it timation of especial importance. The text of the Dayton circular, which has since been and the association goods. It is generally as well made, they say, and of the same that the day of the same and the association goods. It is generally as well made, they say, and of the same that the day of the same and the association goods. recisely as we published them, is as follows: have to be offered. These inducements will generally be extra discounts on comparatively small quantities-discounts that will refer to it as adapted to the wants of those equal or exceed the rebate given by the regular makers on considerably larger quantities. It is not likely that the extreme discounts given by the association will in many cases be much exceeded, the policy of the outside makers being to place their goods with the medium buyers, to whom they can offer inducements. A manufacturer of Tacks. not in the association, referring, to the recent change in prices of the Central Mfg. Co. and the outlook for future trade, remarks:

We think the recent change in prices will prove beneficial to all concerned. Our reason for this opinion is that it will have a tendency to check competition, as we do not think there is any inducement for new man-We respectfully ask you to compare our net ufacturers to enter the field, and it will prices with those of all other manufacturers also tend to bring nearer togother in price efore placing your orders. Soliciting your outsiders and insiders. In our judgment Tacks would have been selling at present prices within a month, for the trade was holding off, waiting coming events, while small manufacturers that must sell would

offer some inducement to place orders with him, for his customers must get certain goods of the Central Company, and in order to make up the loss on this class outsiders must give the rebate at the time of sale, or on smaller amounts.

Another concern engaged in the manufacture of Tacks, and outside of the combination, referring to the effect of the reduction in price by the Central Company, remark that they are running at very slight expense, having other business that all salaries are stand the cut prices if any of the manufacturers can. To the large trade they will sell as low as the lowest combination prices, and invite parties wishing Tacks to send for quotations. They add that they make a full which will be of interest to the trade. line and propose to stay.

MISCELLANEOUS PRICES.

There is no material change in the price of Augers and Bits, but some of the manutremely low price. P. & F. Corbin have, facturers evince a disposition to refuse to sell at the low prices prevailing, preferring discounts as are named above by the to go without the orders than to accept them Russell & Erwin Mfg. Co., but it is at little or no profit. Referring to the situation, one of the manufacturers remarks:

> We are heartily sick of this prolonged fight with competitors, customers and help, all for the privilege of carrying on a business in which there is no possible chance to make anything. We think trade generally is improving, and that there will very soon be a fair demand for these goods, and, if the present ridiculously low prices continue, manufacturers can blame no one but them selves for it. With reference to the recent announcement by one of the manufacturers, another well known house remarks that they observe with satisfaction the reference to taking a firmer stand in prices, and that all the manufacturers in this line will take the same position when they get enough of sell ing goods at a loss, as all goods are sold when at better than 70 per cent discount.

> Trade in the Fire Arms line, in common with other business, has been very dull recently, but with the improvement in weather an improvement has been felt, and expectations are expressed that there will be a fair demand for fall trade. The sale of Target Rifles has this season been unusually large, and seems to be constantly on the increase, especially on the high-price styles.

J. T. Gilmore & Son, Painesville, Ohio, issue a circular and price list relating to their Gilmore's Improved Metal Binding for oilcloths, carpetings. &c., to the special features of which they direct attention. This Binding is made in lengths of 4-4, 5-4, 6-4 and 8-4 yards, and is packed in cases containing 500 yards and 250 yards of assorted lengths. They furnish one Corner with each strip of Binding, making 350 corners in a case of 500 They also furnish 6 dozen 1-cz. papers Round Headed Wire Nails with every 500 yards. This, they remark, makes their Binding \$1.80 less per case than it was last season. The following prices include the Nails and Corners, net 30 days, or 3 per cent. discount for cash in 10 days

Brass Binding, per yard, in lots less than 1000

yards. \$0.05
Zinc Binding, per yard, in lots less than 1000
yards. \$0.05
Zinc Binding, per yard in lots less than 1000
yards. .08
On orders of 1000 yards, either in Brass or Zinc,
or both together, a discount of 5 per cent, is made.
On orders of 2000 yards a discount of 10 per cent,
made.

Chas. Millar & Son. Utica, N. Y., in a circular to their customers, April 6, refer to the market for Lead Pipe as being entirely demoralized and likely to continue so for some time. During this state of things they announce that they will charge their customers for Pipe but a slight advance on the cost of Pig Lead, barely sufficient to cover the cost of manufacturing, while at the same time they will continue to use only the best quality of material and maintain the standard of their goods.

The Chieftain Hay Rake Company, Canton, Ohio, are putting on the market a new Post Hole Digger, known as the "Hercules." Skate, which is made with wood top, autoenable them to compete with other and The list closes with a line of Wrought Iron materials, as the 'Little Giant," but with out the detachable feature and the pick and tamper on the ends of the handles. who desire a cheap Digger and do not care about these features, and for fence-builders who work in gangs where the digging of the holes and setting of the posts is done by separate men. It will be furnished at about \$3 per dozen less than the "Little Giant."

The Marlin Fire Arms Company, New Haven, Conn., have lately introduced in the Rifle line the "Union Hill Target Rifles," Nos. 8 and 9 on their list, which they report as meeting with favor. The 32 caliber for 200 yards shooting they refer to as something entirely new. The manufacturers express the opinion that the time of large bores for target work and also for many sporting purposes is past, and that with less powder also tend to bring nearer together in price and lead, but with the proper adjustment of one to the other, a gain is made in various ways, especially in the matter of economy so far as ammunition is concerned, and also in the diminished recoil. Up to 500 yards they say that the new 32 will do as well as any larger size and range that covers a large proportion of all Rifle work. The moderate price at which they are sold (No. 8 listing at \$37.50 and No 9 at \$33) is alluded to as placing them within easy reach of sportsmen

Scythes carried over a considerable quantity of the goods, and this year Scythes have sold at low prices. On account of the unsatisfactory outlook some of the manufacturers have not been producing the usual quantity of goods, a fact which is to be taken into account in forming an opinion as to the future course of the market. It is intimated by some of the manufacturers that, from inquiries received from the jobbers many charged up to, and they think they can of them have yet to place their orders, indicating both their lack of confidence in ruling prices and that there may be a sharp demand later in the season. But we shall refer to the Scythe market again with information

The Manhattan Hardware Company, Read ing, Pa., give on page 16 their revised prices, April 16. They will interest the trade.

From the announcement of B D. Washburn, 151 Congress street, Boston, which appears on page 22, it will be seen that a special lot of Brass and Brass-faced Window Pulleys and other goods are offered at low figures.

THE HENRY B. NEWHALL COMPANY.

105 Chambers street, New York, are about to issue to the trade an illustrated catalogue nearly 700 pages, the contents of which are indicated very fully in the index, to which the left both square Neck, per lb. 22 double column pages are devoted. The ook opens with an exhibit of the Barb Wire and Fencing specialties manufactured by the Cts. per lb. Pittsburgh Steel Fencing Company, successors to H. B. Scutt & Co., for whom they are Cts. per lb..... Blocks are next illustrated, and followed by a line of Differential Blocks, miscellaneous Pulleys, &c. A complete exhibit of the Ship Chandlery Hardware made by the Newhall Ship Chandlery Company is next given, followed by the manufactures of Oliver Brothers & Phillips, covering a full line of all qualities of Chain from the common farming to the best crane, and a line of Wagon Hardware and miscellaneous specialties. After a variety of Snaps, Curry-Combs are represented by the strategies of th variety of Snaps, Curry-Combs are represented, am ng which special attention is directed to the "Maud S." as a self-cleaning Comb, the construction of which is shown and points in its favor specified. The line of Steel Goods are those of the Iowa Farming Tool Company, after which we have Nu's, Machine Bolts and Heavy Hardware of the manufacturers represented. The Screws are those of the Syracuse Screw Company, and the line of Tacks, Brads, &c., that of Chess, Cook & Co. The Capewell Horse Nails are also shown. After a comparatively full exhibit of the Bonney Vise and Tool Company's goods, and those of the Atha Tool Company, Files of Kearney & Foote's make are represented, with exceptionally handsome and satisfactory illustrations showing the different cuts, sizes, &c., of the different kinds. The Saws of the Harvey W. Peace Company, an important line, are fully and satisfactorily represented, and are followed appropriately by Saw Sets and Saw Vises and a general line of Mechanics' Tools. After some miscellaneous goods we come to the Door Hangers of S. H. & E. Y. Moore, and to the Yale Caster Company's goods. Passing over an extensive line of miscellaneous Hardware, including Butts, Hirges, Pulleys, miscellaneous Builders', Hardware, Hooks, Brackets, House Furnishing Goods, &c., near the end of the catalogue we find Skates, Ice and Roller, among which special attention is called to the Prize Automatic Rink Roller matic rubber spring, double oil cups, &c.

OLIVER BROTHERS & PHILLIPS.

Pittsburgh, Pa., have recently put on the market a Farmer's Steel Plow Anvil, made from 68-pound Steel T-rail; also a line of Steel Fence Posts, Spiral Picket Pins, a Forged Thimble Skein Wrench and a Solid Steel Post Hole Digger, to some of which we may have occasion to refer again. The following special circular of quotations was sent out by them on Monday. As indicating the variety of their manufactures and the prices at which they quote their extensive line, it will be of interest to our readers. Attention is directed to the reduction in the Proof Chain.... price of Fence Pickets, Steel Seat Hooks, Hickory Single and Double Trees and Neck Yokes, and other specialties. On those Crane Chain..... 734 goods marked with †, freight is equalized 9-16 goods marked with †, freight is equalized with Chicago, Cleveland, St. Louis and Crane Chain..... 5.05 4.85 4.65 4.45 4.54 Racine; all other goods f.o.b. at Pitts- Best Best Crane Chain. 12% 9% 7.46 % 7

Merchant Bar Iron, Assorted Orders, card rates... 1340
Bevel Box Steel, 34, 13-16 and 36 x Nos. 12, 13 and 14, with bent ends, per lb. 236
Bevel Box Steel, 34, 13-16 and 36 x Nos. 12, 13 and 14, cut to length, per lb. 236
Bevel Box Steel, 34, 13-16 and 36 x Nos. 12, 13 and 14, cut to length, punched and countersunk, per lb. 356
Steel T Rall, 12, 16 and 20 pounds to the yard, per lb. 45
Hook Head Spikes, 3 x 36, per lb. 34
Hook Head Spikes, 3 x 36, per lb. 31-106
Stele Plow Anvils, 3, 336, 4, 446, 5 in long, per lb. 46
Hook Head Spikes, 25 x 36, per lb. 31-106
Stele Plow Anvils, 3, 356, 4, 446, 5 in long, per lb. 46
Hook Head Spikes, 25 x 36, per lb. 31-106
Stele Plow Anvils, 3, 356, 4, 446, 5 in long, per lb. 46
Box Steel, 34, 13-16 and 36 x Nos. 12, 13 and 47
Box Steel T Rall, 12, 16 and 30 pounds to the yard, per lb. 45
Hook Head Spikes, 3 x 36, per lb. 36
Box Best Best Crane Chain. 6, 95 6, 45 5, 15 5, 55
Brake, with Eye Bolts for Cars, per lb., 475; 5-16-inch. 475; 5-16-i Splice Bars and Bolts, per set... 35¢ 27¢ 20¢
Flat Rail, 1½ x ¼, punched and countersunk, other sizes made to order, per lb ... 3½¢
Cts. per lb ... 3½¢

per lb.... Steel Wedges, Standard Pattern, Axe Fini

Steel Wedges, Standard Pattern, Axe Finish, per lb.

Steel Wedges, California or "Truckee" Pattern, Oil Finish, per lb.

Steel Wedges, California or "Truckee" Pattern, Oil Finish, per lb.

Steel Wedges, California or "Truckee" Pattern, Axe Finish, per lb.

"Axe Finish, per lb.

Stated on order.

Solid Cast Steel Wedges, per lb.

Solid Cast Steel Wedges, per lb.

Not over 50 lbs. each, per lb.

Steel Crowbars, "Wedge" or "Pinch" point, not over 50 lbs. each, per lb.

Tron and Steel Crowbars, 50 to 100 lbs. each, per lb. extra.

Iron and Steel Crowbars, 100 to 175 lbs. each, per lb. extra.

per lb. Packed in kegs of 200 lbs. each.

Steel Harrow Teeth, Headed, packed in kegs, 1, 78, 34, 94 and 76 in., per lb.

Diam'd Steel Harrow Teeth, Headed, per lb. 2 6-10¢

Packed in kegs of 200 lbs. each.

Screw Hook-and-Eye Hinges, with Patent Hooks, 34 to 1 in. diam., per lb.

Screw Hook-and-Eye Hinges, with Patent Hooks, 94 in. diam., per lb. rew and Strap Hinges, 6, 8, 10 and 12 in.

representing the lines of goods in which they are specially interested, supplemented with illustrations and prices of a large variety of others which they handle. The catalogue is an imposing and fully-illustrated volume of the contents of which are cent. off.... Extra Chains for Blocks made to fit Sprocket

Hot-Pressed Square Nuts.
7-16 34 & 9-16 56
.....4 814 814 % to 136 134 & 2 134 834 116

Bridge and Roof Bolts, 1 to 2 in unam, 110 3 3c to 4 ft. long, per lb. Bridge and Roof Bolts, 9c, 9c and 7c in diam. over 4 ft. long, per lb. 34c Bridge and Roof Bolts, 9c, 3c and 7c in diam. from 1½ to 4 ft. long, per lb. stra. 34c Bridge Bolts, with upset ends, per lb. extra. 34c Wrought-Iron Bridge Plates, Punched, per lb. 4 ft. long, per lb. 34c bridge Bolts, with upset ends, per lb. 34c bridge Bolts. 4 ft. long. 1 lates, Punched, per lb. 4 f

Mattocks.

Average weight of Mattock. Average length and width of Hoe....

Grub Hoes.

Western Pattern. Railroad and Clay Picks.

Weights ass., lbs... 4 to 5. 5 to 6. 6 to 7. 7 to 8 Average length... 20 in. 24 in. 25 in. 25 in. Common Eye, per doz., net..... \$4.06 4.35 4.70 4.90 Coal Miners' Picks.
 No.
 1
 2
 3
 4

 Weight.
 2 lbs
 2½ lbs
 3 lbs
 4 lbs
 3 lbs

Stone Picks.

Fig. B, Circle " 6 " 24¢ " Fig. B, " 9 " 26¢ " Fig. C. Diam. " 6 " 25¢ " Fig. C. Diam. " 6 " 25¢ " Fig. D, Scollop " 6 " 28¢ " Fig. D, " 9 " 30¢ " Fig. D, " 9 " 30¢ " Gate Latches, Steel Springs, \$12 per dozen. Steel Fence Posts, each, Painted, 17¢; Galvan-Chain.

4.95 Proof Chain..... 334 494 8.05 1 in. 5.05 534 5.15 Best Best Crane Chain. 6.95 6.45 5.05 5.75 5.55

Lariat, 3-16, with two Swivels, Snap and Ring, per doz. \$6.00
Stretcher, Stay and Fifth, Black.

1885.

...8346 oint, ...3466 oint, ...3366 per16 per26 per36 in...24

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in. 55

April 10, 1000
Wagon Lock and Tongue, Black, 5-16-in.,per lb. 434 Wagon Lock and Tongue, Black, 34-in., per lb. 535 Wagon Lock and Tongue, 36 per lb. advance for
Bright. Hame Clips, Extra Wrought, Polished, 2 doz. in box, per doz
Trace Chains, Straight Link, with Rings.
17ace Chairs, Straight Link, with telegraph of \$\frac{6\frac{6\frac{6}}{6\frac{6}}}{6\frac{6\frac{6}}{6\frac{6}}} \frac{6\frac{6}{6\frac{6}}}{6\frac{6}}}{32} \frac{6\frac{6}{6\frac{6}}}{35} \frac{35}{35} \frac{35}{35} \frac{35}{35} \frac{65}{35} \frac{65}{35} \frac{65}{35}} \frac{10}{5} \fr
Cts. per pair 7-8-3 7-10-2 7-12-9 7-8- Cts. per pair 39 44 4936 45
7-10-1 7-12-1 7-10- Cts. per pair 5016 5416 61
Lap Links, Inside Measure. + Inches5-16x1½ 36x2 7-16x2½ ½x2½ 56x Per gross \$1,40 2.00 2.70 3.30 5.2
Lap Rings, Inside Measure. + Inches^-16x1½ %x2 7-16x2½ ½x2½ 5xx Per gross \$1.65 2.60 3.40 3.80 6.0
10-3 10-2 10-4 10-8
Horse Hitchings, Black, per doz
No. 1 Southern Plow Single-Tree, ironed com- plete, Irons all wrought\$1.4
plete, Irons all wrought
No. 8 Wagon Single-Tree, ironed complete, Irons all wrought, except Malleable Fer-
+ No. 4 Wagon Single-Tree, froned complete, Irons all wrought; improved End Pieces,
riveted on: one side acts as a wear iron for wheel to rub against
complete. Irons all wrought. 8.5 Neck Yokes, ironed complete, Irons all wrought. except End Ferrules, with Wrought Iron Rings, 38 in. \$4.25; 40 in. 4.5
Wrought Iron Rings, 38 In. \$4.25; 40 in. 4.5 Wagon Hardware.
† Wagon Box Strap Bolts and Bolster Plates, 6 & 10 % off.
+ Wagon Roy Stran Rolt Braces Concaved to F
Cts., each
each
Our Straps. 10 x 1/2 12 x 3/2 14 x 1/2 (ts., each
Total Round Flat length, part, part,
† Double and Single Tree Clips. Total Round Flat length. part. part. Fig. 1, No. 1, 7½ x 7.16 x 3½ x 2½, each. 1¾ Fig. 2, No. 2, 9½ x 9.16 x 3¾ x 3¾, each. 3¾ Fig. 3, No. 3, 11¾ x 5.6 x 4½ x 4½, each. 3¾ Pole Caps. each. 10 Pole Caps. with Holdback, each. 13 Single Tree Hooks, No. 1, each. 13 Single Tree Hooks, No. 1, each. 13 Single Tree Hooks, each. 13 Single Tree Hooks, each. 3½ Single Tree Hooks, each. 13 Single Tree Hooks, each. 13 Single Tree Hooks, will pattern, each. 3½ Single Wenches, each. 13 Single Wenches, each. 13 Single Tree Hooks, with Patent Collar, each. 15 Wagon-Box Rods, wide track, with Patent Collar, each. 15 Wagon-Box Rods, narrow track, without Patent Collar, each. 15 Wagon-Box Rods, narrow track, without Patent Collar, each. 15 Wagon-Box Rods, wide track, without Patent Collar, each. 15 Wagon-Box Rods, wide track, without Patent Collar, each. 15 Collar, each. 16
+ Wagon Box Rods, narrow track, with Malleable
Collar, each
Collar, each. + Wagon-Brake Ratchets, Piain, each. + Wagon-Brake Ratchets, finished with Guard.189 + Single-Tree Ferrule and Hook, each
Single-Tree Wrought Center Clip, %-in. welded.
with 1 in Ring, each
*Single-Tree Wrought Center Clip, *Single-Tree Wrought Center Clip, Twisted 5½ + Southern Plow Center Clip, ½-in., welded 5½ + Southern Plow End Clip, ½-in. welded 90 + Southern Plow End Clip, 7-16-in welded, with
sets
with Hook, each
† Neck Yoke Ferrule, with %-in. Ring, each 3 6-10 † Neck Yoke Attachment Center Irons, with Plates complete, each
Clips. length. part. part. + No. 1, 11 x 7-16 x 5 x134, each 354 + No. 2, 14 x 7-16 x 63x134, each 4 + No. 3, 14 x 9-16 x 63x234, each 59-16
Bull Tongue Clevises, 16 and 36 in per lb 49-10
Southern Plow Clevises, per lb
Wagon Box Staples, made from Bevel Box Iron, to rivet on, per 1000
extra large flat, oval and steeple heads, 14
diam, 1 in. and longer, per lb
Wagon Rivets, 25-lb. wood boxes, per lb. extra. 16 Wagon Rivets, in less lots than one keg each size.
Wagon Skein Bolts 34 36 9-16 36 7-16 Cents per lb
punched ready for use, per lb. 4 4 0x Yoke Staples, per set . 65 † Double-Tree Plates, per lb. 46 † Coupling Plates, per lb
Hub Band Iron, per lb

THE WIRE GOODS COMPANY, Worcester, Mass., issue the following discount sheet, April, 1885, in which it will be seen that a number of changes are made in their quotations. They also issue new page 28 ½, making void No. 1412 Brass Screw Hooks on page 29 of their catalogue. In their stead they offer the Brass Screw Hook No. 1412. described on the new page, embodying an improvement which they refer to as enabling them to produce the handsomest and strongest device for small Hooks that has yet been shown. They also, on new page 32 1/2, substitute No. 181 Brass Cup Hook for that given on page 32 of their catalogue. The list of these new goods is as follows, subject to the regular discount of 70 and 10 per cent.:

No. 1412.-Brass Screw Hook. Brass Wire.—Braced Hook. One gross in a box. No. 181.-Brass Cup Hook.

Half-gross in a box.

Their discount sheet is as follows:

ė	Their discount sheet is as follows:	
	Per cen	t
	Bright Wire Goods 70&10&1 Mill Wire Goods Wire S Hooks	16
ė	Wire S Hooks	Ж
	Belt Hooks	ñ
2	Spring Cotters	I
	Belt Hooks. 75&1 Spring Cotters 50&2 Double Pointed Tacks, in boxes 75&1 Double Pointed Tacks, in bulk 50&2 Steel Spring Staples 90&2	H
1	Steel Spring Staples 90.81	14
1	Electrician's Staples. 30&1	ï
•	Casket and Hoop Staples	H
0	Blind Staples	K
	Cary's Patent Wardrohe Hooks 6081	10
	Cary's Patent Knobs	ìì
3	Cary's Patent Towel Bracket	16
5	Press Flush Pings price is non degree and	50
0	gross	10
3	Brass Screw Hooks, No. 1412	1
	Brass Drive Hooks	10
0	Brass Screw and Mirror Hooks all 2069	11
0	Brass Cup Hooks, all 708	1
0	Double Pointed Tacks, in boxes	10
0	Brass Looking Glass Plates	10
	Line Cleats, Brass	11
5	Line Cleats, Brass. Gractic Cleats, Cast Iron. Gractic Cleats, Malleable Iron. Gractic Cleats, Gra	i
0	Line Cleats, Malleable Iron	10
5	Chandelier Hooks 60&	H
5	Brass Head Picture Nails. 50& 10&	1
	Porcelain Head Picture Nails 50&1	i
	Porcelain Knobs	10
5	Iron Hooks and Eves.	71
	Brass Hooks and Pins	1
5	Brass Hooks and Eyes	14
0	Hitching Rings.	71 71
	Hitching Rings, Malleable	7
	Malleable Stake Irons	3
0	Wrought S Hooks	1/
	Hand Rail Screws	Ž
	Wrought Eye Bolts	7
0	Wrought Eve or Swing Bolts. 70.81	(3 14
0	Wrought Well Wheel Hooks70&	10
	Hammock Hooks	N
0	Cattle Leaders	7
v	Wire Clothes Lines 50&1	1
^	Melting Ladles	l
0	Porcelain Head Picture Nails	14
t	Molding Hooks	10
	Brass Pulleys 70&1	1
1	All other Pokers. 406	16
	Wood Handle Pokers40&1	i
c	Iron Head Pokers, No. 1	10
	Tinned Wire Meat Hooks 208108:	1/
ę.	Tinned Wrought Meat Hooks	10
r	Brine Hooks	5
-	Meat Hooks	1
4	Brown's Wire Cutter and Gauge	34
e l	Lemon Squeezers. Twine Boxes. Stove Bolts.	71
i	Twine Boxes	劃
0	Wire Puzzles.	K
	Package Handles	í
	Wire Puzzles Package Handles Suspension Rings Network Staples Network Staples Network Staples 75&	M
0	Wrought Staples	16
F	Wrought Rings 75&1	i
é	Wrought Rings and Staples	10
	Wrought Staples. 75&: Wrought Rings. 75&: Wrought Rings and Staples. 75&: Malleable-Iron Rings Malleable-Iron Rings and Staples.	
F	Wire Nails	ŷ
0	The following circulars relating to the	
	well known house of	e

well-known house of

DURRIE & M'CARTY,

97 Chambers street, New York, are about to be issued to the trade. It will be seen that they announce the withdrawal from the they announce the withdrawal from the firm of Frank Durrie, who takes instead the position of selling agent of the Rhode Island Horse Shoe Company, the firm of Durrie & McCarty retaining all their other agencies and continuing otherwise as before, with John C. McCarty as the head of the concern. The gentlemen concerned in this change of business relationship will have the best wishes of the trade in this new departure. The circulars are as follows:

97 CHAMBERS STREET, NEW YORK, April 14, 1885. To the Trade: Mr. Frank Durrie, by mu-To the Trade: Mr. Frank Durrie, by mutual agreement, ceased to be an active partner in our business on the 1st inst. His financial interest will remain, however, and the business will be continued by the undersigned, under the old style and firm name of Durrie & McCarty. Yours truly,

JOHN C. McCarty,

WILLIAM H. LITTELL.

Referring to the above, would say I have been engaged by the Rhode Island Horse Shoe Company, Providence, R. I., as their selling agent, and will hereafter represent them exclusively. Yours truly, FRANK DURRIE.

PROVIDENCE, R. I., April 14, 1885.

WHAT THE TRADE SAY.

in Hardware, the causes that lead to the existing demoralization, and a suggestion with reference to the action that jobbers might take to bring about a more satisfactory condition of things. Our readers will be interested in the discussion, and we leave might be devised and matured that would might be devised and might be devised and matured that would might be devised and might be devised and matured that would might be devised and might be devised with reference to the action that jobbers it to our friends among the jobbers to judge of the feasibility of the remedy suggested :

Since the advent of 1885, trade, until within the past few weeks, has been ex-tremely quiet in this part of the country— undoubtedly the effect of the severe and munication, which comes to us from Oregon. protracted winter weather. Business is now assuming a spring aspect, the demand for

just the same in nearly every instance—discouraging, but nevertheless a fact. We attribute the one great cause of this depression to overproduction, or supply in excess of demand. Otherwise this state of affairs could hardly exist. To reduce the surplus and bring about a change, we recognize two important elements, which must be brought into active service again, viz., a large and increasing interstate development, calling for manufactured goods of all kinds, and what is really more necessary, perhaps, a solid, growing and substantial export business. When the tide sets in on these two lines shrinkages in values must materially cease, and the record of failures will scarcely be worth a newspaper item.

be worth a newspaper item.

For some time past *The Iron Age* has continuously published interesting communications on the subject of "Cutting Prices by Jobbers." We think that jobbers, as a rule, are desirous of making a success of their business, and to reach this result they well know a profit must be secured. We believe, also each jobber in their their their things. know a profit must be secured. We believe, also, each jobber is striving to attain this desired result. It has been stated that many jobbers deliberately give away the special or "blind" discount for quantity, or what not, allowed them by some manufacturers. We hardly think so. These discounts, generally small, are undoubtedly in most cases held sacred, and are not made public to employees. We attribute the main "cutting of prices" to traveling salesmen. These gentlemen are altogether too sensitive in gentlemen are altogether too sensitive in accepting a rumor for a fact. But here the question may pertinently be asked, Who gives these gentlemen the authority or privilege to "meet and beat" these alleged prices; and here, also, is where the trouble is permitted to exist and flourish. The prices to sell at that a jobber gives his traveling salesman nowadays seem to be merely as a guide for him to go by, and not as the jobber's actual him to go by, and not as the jobber's actual selling prices, carefully compiled by him and based only on a fair and reasonable profit. The traveler has only to cut the price given him, with or without any good or valid reason, write a plausible excuse (of which the number is legion) with his order, and the matter is either accepted, winked at by the jobber, or a mild remonstrance made. The only way we see to obviate this difficulty is for jobbers generally, both large and small, to insist and maintain that traveling salesmen shall and must adhere to the prices as given them under adhere to the prices as given them under any and all circumstances. From an unlimited leeway, as it appears now, an established limit must exist and be enforced. Jobbers as a whole buy their goods at nearly the same cost. There is not a living profit between the cost prices of a large and smaller jobber. Jobbers' selling prices, as a rule. who should be blamed for this state of affairs.

It is the management that permits it. A few

and no discounts or net prices whatever printed. Designate and limit the lines of From a well-known jobbing house of lowa we have received the following communication, in which it will be seen that there is a careful discussion of the situation destroying profits, the objection of all business. We cannot hope for the entire abolition of cutting prices, but we think if a

> prove largely beneficial to all concerned. Many of cur correspondents, referring to the condition of trade, allude to the continueffect upon business, but the following com- lish manufacturers. munication, which comes to us from Oregon, it will be seen, represents different condi-

tions and will be of interest to our readers: goods is steadily increasing in quantity, and we may reasonably expect from now on a fairly active trade. We regret to note the almost entire absence of any reaction from the paparently ruinously low prices of most some from considerable distances, but I don't goods in the Shelf Hardware line. We fondly hoped that, with the close of 1884, all, or nearly all, shrinkages would cease—that is, we believed, the mysterious bottom had been reached. With the exception of dition, for we have had most delightful by E. Bissell & Co., on page 22, their next trade sale of Hardware line, we believed, the mysterious bottom letters, as well as in your editorials, constant references to cold weather, ice and snow. It is not easy for us to realize such a conhad been reached. With the exception of dition, for we have had most delightful

two or three lines of goods, we admit we are disappointed. Manufacturers continue to offer and sell goods at lower values all along the line Each successive purchase brings a have fallen off and the fruit is well set. lower price, and we virtually stand on the same basis as 1883 and 1884, only a little nearer the end. The fact of being assured from reliable sources that it is impossible for a line of goods to go any lower in price amounts to nothing; the lower price comes to the company, and the little and the little and the little same has a line of goods to go any lower in price amounts to nothing; the lower price comes are little earlier than usual, but it is not until the laws and the little to which they invite special attention, viz. to which they invite special attention, viz. Whittemore's Simplicity Apple Parer, Corer and Slicer, and Whittemore's "Boss" Fruit for a few days only. The season has opened a little earlier than usual, but it is not until the little to which they invite special attention, viz. Whittemore's Simplicity Apple Parer, Corer and Slicer, and Whittemore's "Boss" Fruit for a few days only. The season has opened a little earlier than usual, but it is not until the laws and the little to which they invite special attention, viz. a little earlier than usual, but it is not un-precedented, and does not strike an old set-tler as much out of the ordinary course. We have suffered, in common with the rest of the world, from the general depression, but there are signs of better times in the near future

B. L.

follows concerning the way in which goods illustrated with nearly 70 engravings of the are forced upon the retailers:

are forced upon the retailers:

We have taken a great deal of interest in reading the letters in The Iron Age from manufacturers, dealers and retailers. We think that the business is overdone, and that there are too many travelers on the road for the health of the wholesale trade. We average two a day in a town of 5000 inhabitants, and all bound to sell. We have seen five coming on a run from the depot, to find two more ahead of them. It is our experience that it does not pay to buy in large quantities, as we can generally purchase for less money the next time. Even if the manufacturers put up the price, some jobber is ufacturers put up the price, some jobber is sure to break it. Our business is improving this spring; the farmers are buying more than they did last year, and they nearly al-ways have the money to pay We hear the same report from surrounding towns.

A manufacturer in Massachusetts thus refers to the outlook for trade as seen from being also closely copied, while the goods his standpoint:

As to the prospects of trade for this spring, I would say I have just returned from a trip as far East as Eastport, Me., and, although I met with fair success, every one was complaining of hard times and a slow spring. At Eastport nearly every canning house is getting ready for the 15th, when they are allowed to take the small herring to can for sardines. Shipping with them is nearly dead, many vessels not paying expenses. At dead, many vessels not paying expenses. At Portland every one seems afraid to buy. At Ports nouth, N. H., one house seemed to be doing quite a little, but unless the beach houses fill this summer little business in building will be done. The same condition of things was found at Newburyport. At Waltham they have suffered more than ever the beach the discharged more than every yet before, the discharge of some 600 hands at the watch factory last December having made a great and injurious change in the business of that place.

ITEMS

The Harvard Roller Skate Company, 235 Washington street, Boston, have opened a branch office in this city, at No. 96 Chambers street, where they will be represented by Tower & Lyon, who will carry a full line in stock.

Parker & Coffee, Memphis, Tenn., issue a circular describing the P. & C. Water, Elevator and Purifying Pumps, with illustrations showing their construction and the different patterns they manufacture.

The catalogue of Howe Brothers & Hulbert, West Winsted, Conn., is of interest as showing an exceptionally complete line of Corkscrews. As the manufacturers are constantly adding new patterns, necessitating frequent changes in their list, they large and over-ambitious jobbers, it is issue it separately from their lists of Shears known, sometimes buy large amounts of goods—more than their legitimate trade can on this line of goods we would refer to issue it separately from their lists of Shears absorb—when they dispatch travelers into a competitor's territory and unload their surplus at about cost price, thus demoralizing the entire market. Two or three reasons are given as an excuse: To make competitors feel their power, "as it were," obtain so much free advertising as cheap sellers, and to increase their purchases coast to

so much free advertising as cheap sellers, and to increase their purchases so as to squeeze the manufacturer for an additional extra discount for large quantity. This practice should cease. It is neither business-like nor clever. Jobbers realize too well the immense expense of running a corps of traveling salesmen, besides all the annoyances attached to the line of River Drivers' Boot Calks which they exercise. To meet the demand of the times

system. To meet the demand of the times and help mend matters, we think a system might be originated and developed looking toward a reduction in this expensive method of deing bysiness. Suppose for expression on the market, and that they will use in its McCarty, of New York, who have represented us for so many years, and with whom our relations have been uniformly pleasant and satisfactory, have retired from the agency of our goods. We have engaged Mr. Frank Durrie the retiring parter to represent us. All orders, inquiries, correspondence and remittances after this date must be sent direct to us at Providence, R. I. For the convenience of the trade we have established a branch office at No. 97 Chambers lished a branch office at No. 97 Chambers of traveling salesmen from each house on a first total. In all circulars and sales of each house on a first total. In all circulars and sales of these goods they have added manufacture of these goods they have added to the manufacture of these goods they have added manufacture of these goods they h The goods, for convenience in retailing, are put up packed 100 in a box or 500 in a

> John Sommer's Son, Newark, N. J., has enlarged his facilities for producing goods, and has erected buildings on a plot of ground bounded by Central and Morris avenues, Dickerson and West Monroe streets. refers to the satisfactory increase in his trade, noticing as a feature of the demand that the sale of the better goods has materially increased. He refers also to the numerous inquiries that are made for his regions will be built during the present goods for export, alluding especially to the South American trade, which was formerly controlled by the French, German and Eng-

The Russell & Erwin Mfg. Co., New Britain, Conn., and New York, issue a circular of their line of Steel Carpet Nails and Steel Wire Brads, giving the list prices, discounts and contents of cases.

Attention is directed to the announcement by E. Bissell & Co., on page 22, regarding their next trade sale of Hardware, Table Cutlery, House Furnishing Goods, &c., April 29 and 30, at their salesrooms, 83 Chambers

to which they invite special attention, viz.,

The Diamond Roller Skate Company, Richmond, Ind., are so adding to their manufacturing facilities as to enable them to largely increase their output.

The Pope Mfg. Co., Boston, have issued their spring catalogue, April, 1885, a taste-A New England Hardware house writes as fully-printed pamphlet of 52 pages, and Columbia Bicycles and Tricycles and sun-

George E. Lockwood & Co., 155 North Second street, Philadelphia, have recently brought out a new horseshoe-shaped Illuminated Match Safe, and also an improved Flue Stopper. The Match Safe is made both in brass and decorated tin. The Flue Stopper has been improved by the addition of a ventilating attachment, but can also be had in the old syle without ventilators. These Stoppers are decorated with chromos, and are made up in a variety of colors, &c.

The Acme Shear Company, Bridgeport. Conn , call attention to the fact that their "Acme" Shear, ornamental handle, patented July 17, 1877, has been imitated and been offered on the market under similar names, their labels, color and shape of box are referred to as inferior in every way.

The Crescent Roller Skate Company, Richmond, Ind, expect shortly to put on the market an Improved Club Skate, which, among other features, will have their Self-Oiling Wheel.

The Nantasket Roller Skate Company, Lowell, Mass., have just removed into a new factory, corner Market and Worthen streets, where they will be able to turn out double the amount of goods they could from their former factory. They will soon issue a new catalogue.

Hobart B. Ives has formed a copartnership with Frederick F. Andrews, and the firm becomes Hobart B. Ives & Co. In making this announcement reference is made to the increased facilities and the intended addition of new goods to the line of manufacture.

The Conner & Mather Mfg. Co., Richmond, Ind., although rather long in having their Skate put on the market, report a good and increasing demand. Their capacity is now 150 pairs per day, which will be increased to 300 pairs in about two weeks.

The Holmes & Edwards Silver Company, Bridgeport, Conn., have recently put in their factory a new 100-horse-power engine. C. D. Leet, Bridgeport, Conn., manufacturer of Vises, is about to introduce a new Pipe Vise which will have special features.

A A. Weeks, 82 John street, New York, ssues circulars relating to the specialties of which he is the manufacturer, among which are the following: New York Clothes Line Holder, Security Letter Box, Patent Convex Fluting and Smoothing Iron, American Sash Holder and Lock, and Weeks's Grape, Fruit and Flower Picker.

W. N. Packer, Benson Block, corner of Canal and Michigan streets, Cleveland, Ohio, has recently put on the market a Roller Skate called "Packer's Practical," for which special claims are made in a circular issued giving a description of it.

Coal Market.

The Coal-trade headquarters in this city are very quiet, the orders received being in no sense oppressive, either as to number or size. In truth, the spring opening prices have very little spring in them. Trade apparently is waiting until navigation is wholly

Bituminous remains, as for some time past, at \$3.25, alonside, with business quiet. The total amount of Anthracite mined thus far in the year 1885 is 6,414,042 tons, compared with 5,857,654 tons for the same period last year, a decrease of 556,388 tons The total amount of Bituminous sent to the Eastern markets thus far in the year 1885 is 1,244,853 tons, compared with 1,186,488 tons for the corresponding period last year, an increase of 58,365 tons

The extension of the Pennsylvania Schuylkill Valley Railroad to the Anthracite Coal year. A large number of men are now engaged in grading upon several sections of the railroad between Hamburg and Pottsville.

Metal Exchange.

The following transactions have been recorded at the Metal Exchange during the week:

THURSDAY, April 9. 10 tons Tin, April. \$0.1785 10 tons Tin, March 1725 20 tons Tin, April. 1735 FRIDAY, April 20, 10 tons Australian Tin, April...... \$0.173



L. COES'

Genuine and Mechanics, PATENT

Screw Wrenches

COES & CO.,

Worcester, Mass.

ESTABLISHED IN 1839.



Our Genuine Wrenches are made with straight bars, full width and eularged jaw, having ribs cast inside, which strengthen the jaw and give a full bearing on front of bar. These improvements, in combination with our new ferrule, made with double bearings, an iron tabe, fitted to the shank and resting against the lower bearings, ruridly held in position by the handle and nut, effectually preventing back thrust of ferrule (see sectional view), verify

L. COES & CO., Worcester, Mass.

Warshouse, 97 Chambers and 81 Reade Sts. NEW YORK.

DURRIE & McCARTY, Bole Agents.

& BRITTAN MFG. CO.,

RIM AND MORTISE DOOR LOCKS WITH BURGLAR-PROOF ATTACHMENT.

GENUINE BRONZE AND IMITATION BRONZE KNOBS, &c., &c.

Mathes' Patent Burgular-Proof Sash Locks. PADLOCKS.

TEA, COUNTER, UNION AND PLATFORM SCALES.

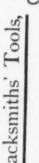
Catalogues and Lists furnished on application.

JOHN H. CRAHAM & CO., Agents, 113 Chambers St., New York.

ILLINOIS IRON & BOLT CO.

Nos. 20 to 26 Main Street,

CARPENTERSVILLE, KANE CO., ILL.





BLACKSMITHS' DRI

Jack Screws, Tire Benders, Track Jacks, Carriage Makers' Vises,

SAD IRONS, COPYING PRESSES AND STANDS, &c

NEW IMPROVED



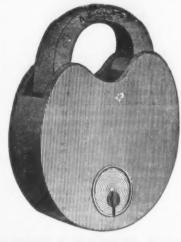
MANUFACTURED BY

NOVELTY CO., Muncie, Ind.

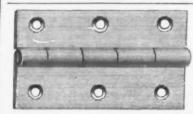
Maltby, Curtiss & Co., New York, O. S. Chamberlain,

SOLE AGENTS FOR THE Eastern, Southern and Export Trade.

55 Dearborn 9t. Chicago



DURRIE & McCARTY, Agents, 97 Chambers & 81 Reade Sts., New York.



W. & J. TIEBOUT.

MANUFACTURERS OF

BRASS, GALVANIZED & SHIP CHANDLERY HARDWARE.

Nos. 16 & 18 Chambers Street. NEW YORK.



FIELD'S IMPROVED

FORCE PUMPS Latest, Cheapest and Best.

Household, Orchard and Well Force Pumps, Pitcher Pumps, Tube Well Pumps. ECONOMY Garden Engine.

Send for Catalogue. Field Force Pump Co., Lockport, N. Y.



ALWAYS GIVES THE UTMOST SATISFACTION Main Belting Co.,

Manufacturers of THE LEVIATHAN COTTON BELTING

Unsurpassed for Strength, Durability and Cheapness. Made to any Length, Width and Strength Main Driving Belts. Guaranteed to Run traight, Even Through out.

No Cross Joints, Unaffected by Damp.
Clings well to the Pulley
Has no equal. In fact
is THE BELT.

MAIN BELTING COMPANY.

W. cor. Ninth and Reed Ste., Philadelphia. Also 248 East Randolph St. CHICAGO

Fine German Silver

DRAWING INSTRUMENTS

No. 72 .- Dividers, German Silver, 3 inches long with Pen, Pencil and Needle Points, No. 73.—Dividers, German Sitver, 6 inches long with Pen, Pencil and Needle Points and Length No. 78 —Spacing Dividers, all steel, with Spring and Adjusting Screw, . . . \$1.25 No. 81.-Bow Pen, all steel, with Spring and Adjusting Screw No. 84.—Bow Pencil, all steel, with Spring and

\$1.50 Adjusting Screw, . . No. 89.-Drawing Pen, 4 to 6 inches long, Ger \$0.75

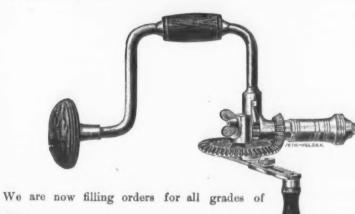
These instruments are of fine quality, and are ecommended to Architects, Carpenters and Machinists for accurate drafting. The prices quoted do NOT include Express

Sent, postpaid, on receipt of price, by

DAVID WILLIAMS.

Publisher and Bookseller, Sole Agent for the West. 83 Reade Street, New York.

BARBER'S BIT BRACES.

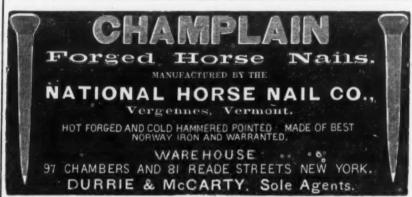


Braces.

While our standard goods cannot be sold at much reduction from former prices, the new grades will be offered at market rates for goods of like quality. Our Braces are still covered by six good and valid patents, which have several years to run. Quotations on our full line will be furnished on request.

MILLERS FALLS CO.,

No. 74 CHAMBERS ST., NEW YORK.



WILMINGTON, DELAWARE,

New York Office, No. 90 John St.; Entrance on Gold St., MANUFACTURERS OF

CHARCOAL

AND PLATE IRON GENERALLY. ALSO BEST QUALITY HOMOGENEOUS STEEL PLATES.

We ask the special attention of the trade to our C. H. No 1 Boiler Plates, which we manufacture expressly for the Shells of Steam Boilers and stamp 50,000 pounds T. S when desired. One hundred and sixteen tests of this iron, made during the last three years by the U. S. Inspectors of Steam Vessels, show an average tensile strength of 58,898 pounds to the sectional square inch. and an average reduction of area of the fractured section of 30% per centum. Our prices are as low as the production of a good article will admit of.



PATENTED HARDWARE SPECIALTIES AND NOVELTIES.

MAIN OFFICE AND FACTORY : FRANKFORD, PHILA.

BRANCH OFFICES: 126 Chambers St., New York, Chas. E. Spier, Mgr. and 415 Commerce St., Phila. New Spring Socialties-King Egg Beaters, awarded medal at American Institute, New York; King Candle Lamp and Lantern. cheapest combination ever made.



DAY BROS. PORTABLE FORGES

Fan Blowers, Tire Benders, etc.

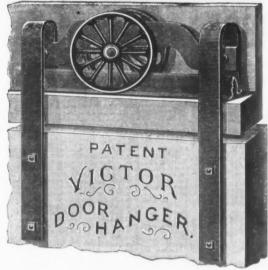
All sizes. The most improved and handiest Blacksmiths' Machines of all sorts. Send for full particulars. 419 & 421 N. 2d St., PHILADELPHIA, PA.



PURE TURKISH

ces

ral



Wrought Iron. **Anti-Friction**

IT EXCELS ALL OTHER'

Security of Door. Strength of Material. Ease of Motion. Simplicity of Application.

HIS HANGER

Requires No Oil. Has No Flanged Wheels. Packs Snugly for Shipment.

BEST.

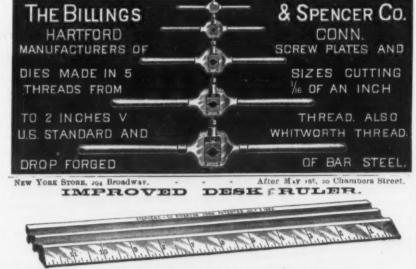
VICTOR MFG. CO., NEWBURYPORT, - MASS.



The Boss Nail Puller does not infringe. All purchasers indemnified.

Send for Discounts.

DIRIGO TOOL CO., 245 Broadway, New York.



STEPHENS & CO., Piverton, Conn., Manufacturers of U. S. Standard Boxwood & Ivory Rules.

Also, Exclusive Manufacturers of L. C. STEPHENS' PATENT COMBINATION RULE. Established in 1854

THE HOOSIER ROLLER SKATE. The Latest, Best, Most Complete and Practical Skate ever offered to the Trade.

No getting out of place of the Elastic Tension Tension can be modified quicker than on any Skate made. Made of the lest material, and every pair thoroughly tested. Not liable to constant repair. Please send for prices and terms to

GAAR, CLAWSON & CO.

MANUFACTURERS,

RICHMOND, INDIANA. Liberal Terms to the Trade.



Stevens's New Surface Gauge.

Messrs. J. Stevens & Co., of Chicopee Falls, Mass., are now bringing out a new surface gauge, shown in the annexed illustrations, and claimed to be superior to all others in its quick and fine adjusting powers, and especially in the grasp of its pointer. This tightens on to one of the rods, and moves only with it, instead of sliding upon it, as others do, and is held perfectly firm in all its adjustments. The post A is rigidly fastened to the base B in the usual manner. At the top of the post is the nut-ruide m for Messrs. J. Stevens & Co., of Chicopee At the top of the post is the nut-guide m for nut O. The adjusting-rod c is guided at the top in a hole through m, and at the bottom in a hole in the base B. By means of the nut O the rod and attached parts can be adjusted vertically. The support d is made with a branch, k, through which the rod cpasses. This branch is recessed to receive the cylindrical head w of clamp-screw i. the cylindrical head w of clamp-screw i. The rod c passes through the head w and branch k. The pointer n is held between two clamps, e e, as clearly represented. This permits of turning the pointer and clamps on the screw i, and of binding the whole by means of nut f. It will be understood that the mechanism carrying the pointer can, when the nut f is loosened, be readily moved up or down the post; that when the nut f is when the nut f is loosened, be readily moved up or down the post; that when the nut f is tightened it clamps this mechanism to the rod c, but by turning nut O the pointer can be adjusted a short distance up or down to oring it to the exact position required, after it is otherwise securely clamped. The advantages of providing for this adjustment will be apparent to these acquisioned to use will be apparent to those accustomed to use such tools.

By having a hole drilled in the base it is also adapted to a depth gauge and various other purposes. In the small size the base is of cast iron, round, and turned true with

purchase money. The property consists of seven tracts of valuable iron-ore and timber seven tracts of valuable iron-ore and timber land comprising 10,000 acres, besides the forge and furnace, and is valued at \$300,000. Owing to the disagreement of the parties in regard to the disposing of the property the sale was postponed until Friday, April 17, when the court will decide whether it shall be sold in its entirety or in

An order was issued some days ago requesting the miners at the Redstone Coke Works, in the Connelsville region, to use safety lamps. The men objected because safety lamps. The men objected because the lamps did not give good light, and about 40 of them quit rather than use them.

It is reported that the Sharon Iron Company are about to blow out the one of their two blast furnaces which is at present in

Fairchance Furnace, in Fayette County, was blown in on Monday, April 6.

It is reported that Etna Furnace, of the Etna Iron Works, Newcastle, in which P. L. Kimberly, of Sharon, is the largest stockholder, is being prepared for blast. The furnace has been idle for some months

James P. Witherow, of Pittsburgh, is erecting new hot-blast stoves at Dunbar Furnace, Fayette County.

Pierce, Kelly & Co., of Sharpsville, have blown in their Sharpsville Furnace, which had been idle for some time. They employ

Executions have been issued against the Rogers Stove Company, of Downington, and the sheriff has levied upon the property and closed the works. Insufficient capital is reported to be the cause of the trouble.

The E. & G. Brooke Iron Company, of Birdsboro, will do no work in their rolling mill and nail factory this week, to make

coming in daily. This firm are also making three cast-steel rolls for the Phonix Iron Works, Phonixville, Pa., which weigh over tons apiece. They are now very busy in all departments of their works.

OHIO,

The Calumet Fire Clay Company, Elliotsville, will start up full this week. About three months ago they were burned out, but since then have been energetically pushing the construction of new buildings. The new establishment is built of wood and bricks and will be made as nearly fire-proof as possible by a covering of sheet zinc. Jones & Laughlins, of Pittsburgh, furnished the pulleys and shafting, and the Chalmers—Spence Company the pipe coverings. The capital stock of the company has been increased to \$80,000.

The Belfont Iron Works Company, of Ironton, have abandoned their gas well at the depth of 20,42½ feet. There is some talk of raising money among the citizens. taking the well and boring 500 feet deeper.

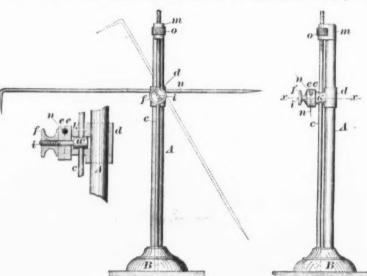
The firm of Rhodes & Co., of Cleveland, dealing in coal, iron ore and pig iron, was dissolved by mutual consent on April 1, and the business will be continued by M. A. Hanna & Co. Messrs. R. R. Rhodes and J. F. Rhodes retire, the new firm consisting of Messrs. Marcus A. Hanna, Leonard C. Hanna and Arnold C. Saunders.

The nut works of Arms, Bell & Co., Youngstown, started up April 6.

A strike was begun on April 1 at the Riverside Glass Works, at Wellsburg. The difficulty grew out of the employment of a gathering boy who was objectionable to the Glass Workers' Union, and whom the manager refused to discharged at the demand of the lodge.

The E. & G. Brooke Iron Company, of Birdsboro, will do no work in their rolling mill and nail factory this week, to make necessary repairs.

The copartnership existing between Le Grand Skinner and Thos. C. Wood, under the firm name of Skinner & Wood, has been dissolved. Mr. Le G. Skinner will continue



STEVENS'S NEW SURFACE GAUGE.

INDUSTRIAL ITEMS.

PENNSYLVANIA.

Arrangements are being made to blow in one of the Lehigh Iron Company's furnaces at Aineyville, and one of the Coplay Iron Company's stacks at Coplay. The latter furnaces have been idle for over two years.

The Thomas Iron Company are preparing one of the recently purchased Saucon Furnaces for blast.

completed at an early date, and the furnace will probably be blown in.

The Middlesex Rolling Mill, at West Middlesex, owned by the Wheeler Iron Company, of Sharon, was to have resumed operations on April 7.

Sternbergh's Rolling Mill, in Reading, which had been closed for a week for repairs to the engines, commenced operations on April 6. The mill gives employment to about 50 men.

The coke works in the Connellsville region were idle two days last week.

The assignee of Dr. S. C. Baker, Martin Bell, Jr., will offer at public sale at Alleghenv Furnace, near Altoona, Blair County, on Wednesday, April 15, 1885, at 10 o'clock a. m., 1000 tons pig iron pledged to various parties in Pittsburgh, and to be sold subject to the rights of the parties to whom it is pledged, 142 tons pig iron, 30 tons cast scrap, 15 tons wrought scrap, 500 tons hematite, 300 tons soft tossil and 350 tons hard fossil ore, 16 railroad cars, 50 small ore cars, 16 mules and various other personal property.

The 5-ton hammer at Charming Forge, at Womelsdorf, Berks County, broke on April 9, causing a stoppage of the entire works. The lcss is \$300. The Messrs. Taylor expect to replace the hammer shortly and continue the business.

Barree Furnace and Forge, owned by J. W. Mumper & Co., situated in Barree Township, Huntingdon County, on April 10 was offered again at sheriff's sale, the former sale having been annulled by the court, owing to the delayed payment of the

PITTSBURGH AND VICINITY.

It is reported that McKeesport and Braddock are offering inducements to Chess, Cook & Co. to remove their nail mill and factory from their present location on the Southside.

D. W. C. Carroll & Co. have launched two of the steel barges built for Captain Eads for use in the Mississippi River improvement, and the two remaining are being moved to the river. The firm are engaged on general the river. The firm are engaged on general ironwork, having no special orders on hand

At the Pittsburgh Locomotive Works only

Shoenberger & Co. are making preparations to build a Bessemer steel plant, the product to be used in the manufacture of nails. The plant will be in running order as

Of the six Westinghouse gas wells that were sunk in the Homewood district only Nos. 5 and 6 are furnishing any gas, and they only sufficient to furnish the few domestic consumers. It is stated that the Westinghouse people have not gone deep enough to strike the true vein of gas, which dips this side of the Tarentum region at the building which will be used as an additional rate of 40 feet to a mile.

The gas well which has been struck by the Guigin well.

Hubbard, Bakewell & Co. are moving their axe, shovel, saw, hoe and drain tool manufacturing establishment from their old stand on Dinwiddie and Colwell streets to the corner of Forty-eighth street and the Allegheny Valley Railroad. The new quar-ters of the firm will be much larger and better adapted for their work.

The Novelty Tool Company, Limited, have nearly completed their new works at Verona, and expect to get them into operation about the middle of the present month. The company have many orders on hand for ment high.

the upright spindle. The total hight is 8 inches, and will scratch 8 inches sideways and 13 inches high. The cast-steel needle is pointed on each end, one of which ends is bent to a right angle. All parts are polished and accurately fitted. The large-size tool weighs 2 pounds, and its arm will scratch 10½ inches sideways and 18 inches high. These points, together with its simplicity, as shown by the cut, make it a most desirable tool for practical mechanics.

The business under the name of the Skinner Engine Company.

Engine Company.

P. L. Kimberly & Co., of Sharon, started their Greenville Rolling Mill on April 10 double turn.

M. V. Smith, of Tyrone, is erecting two of his improved 30-ton gas furnaces for the Ellis & Lessig Steel and Iron Company, of Pottstown

Engine Company.

Care for the property to Pittsburgh creditors for \$25,000, and it was afterward taken by the mortgages at a less price than their mortgage. The mortgages claimed McIntosh should look to the surplus, and not to them, for his money. The Judge decided the fore-closure of the mortgage terminated Long's trusteeship, and ordered that McIntosh should be paid from the proceeds of the sale tool for practical mechanics.

PITTSBURGH AND VICINITY. for \$25,000, and it was afterward taken by the mortgages at a less price than their mortgage. The mortgages claimed McIntosh should look to the surplus, and not to them, for his money. The Judge decided the fore-closure of the mortgage terminated Long's trusteeship, and ordered that McIntosh should be paid from the proceeds of the sale the sum of \$300 and cost: of his application. Only one of the original owners of the works, McNab, has recovered more than he invested.

MISSOURI.

The Shickle, Harrison & Howard Iron Company, of St. Louiz, are building an addi-tional drying oven in their new foundry for

Rohan Bros., of St. Louis, boiler manufac-urers, in addition to a large amount of repair work, are engaged upon a large job for the Las Vegas (New Mexico) Wood Preserving Company, consisting of two cylinders 110 feet long, 6 feet in diameter, out of ½ inch iron, to be used for creosoting wood— The work of relining Charlotte Furnace, at Scottdale, Westmoreland County, will be the furnace work, at Scottdale, Westmoreland County, will be work, as the firm have no special orders.

At the Pittsburgh Locomotes work. inch iron, to be used for creosoting wood—a process designed for the preservation of wood employed in bridge building. They also have a conalso two large boilers. They also have a contract for refitting the Mississippi Valley Transportation Company's line of tow-boats putting in entire new sets of breeching, stocks, &c.

The Western Forge and Tool Works, of St. Louis, have recently occupied their handsome new building, 40 x 101 feet, at the corner of Collins and Ashley streets. A full

factory for sewer-pipe.

One hundred and fifty men employed in Canonsburg Iron Company near their works the Misscuri Car and Foundry Company's is reported to be nearly as large as the Mc-shop-, at St. Louis, struck April 12. The cause which led to this action was a reduction of 10 per cent in their wages. The shops are closed, and the proprietors refuse to entertain propositions from strikers.

ILLINOIS.

The Chicago Safe and Lock Company are at work on an order from San Francisco, Cal., for six safes. The machinery for the work is all in, and the works are being operated to their full capacity.

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Current Hardware Prices April 15, 1885.

HARDWARE.	Brackets. Shelf, plain, Sargent's list Shelf, tancy, Sargent's list Reading, plain. Reading, Rosette.	dis 60&10 % Racking		T. M. C. P. R. 9&10
Anvils Eagle Anvils American. ** D 10¢—dis 20 Wright's. 934 @ 1	Reading, plain. Reading, Rosette. Bright Wire Goods List of June 25, 1883.	dis 60&10&5 % Plain Bibbs Ale and Beer. dis 70&10&10 % Board and Board	dis 65&: dis 65&: dis 60&: dis 60&: lis	I LInck Saws.
Ca Eagle Anviis American. # in 10e—dis 22 Wright's	Broilers.—Hents' Self-Basting. Inch	10 9 x 11 5.50 6.50 Selsor's Paten American, En The "Swift," ' Webb's Paten	dis 40&10&1 \$9.50, \$10.50, dis 21 erprise Mfg. Co. dis 20&10 Ane Bros. dis 20&10 dis 40&10&10 dis 40&10&10 dis 40&10 dis 4	Star Back Saws and Diades. **Ralters.—Covert's Pat. ½ Jute
Anvil Vise and Drill. Millers Falls Co., \$18.00	Union Nut Co. Sargent's. Hotchkiss' low list.	Complete State of the Complete	. Dividers, occ	Mencely's Pat. Adjustable Hemp and Jute. Mencely's Hemp and Jute Horse and Ties
Irst Quality	Wrought Bress	dis 50&10 g Bemis & Call C Bemis & Call C Bemis & Call C Bemis & Call C Bemis & Call C	dis 60&10&10 dis 60&10&10 dis 60&10&10 dis 60&10&10 o.'s Dividers dis 60&10 o.'s Compasses & Calipers dis 50&2 o.'s Wing & Inside or Outside dis 50&2 o.'s Double dis 60 dis 60 dis 60 dis 50 dis 50 	Cheney's, new list, march, 1885. Hartford Hammer Co.'s Nail Ham's, dis 25&5 Buffalo Hammer Co. dis C. Hammond & Son. dis408
dis 60 ctent Solid Head dis 30 ctent Solid Head dis 30 ctent Solid Head dis 30 ctent Solid Head dis 45	Cast Brass, Trebour's Cast Brass, Corbin's Fast Joint Cast Brass, Loose Joint Fast Joint, Narrow	dis 33½&10 g dis 33½&10 g dis 33½&10 g dis 60&10&5 g J. Stevens & Co	o.'s (Call's Patent Inside)	Werree. Magnetic Tack, Nos. 1,2,3,\$1.25, 1.50 and 1.75.d Nelson Tool Worksd.
cook's, xew Haven Copper Co. dls 50x10a; 50x10a	Butts Wrought Brass. Cast Brass. Tebout's. Cast Brass. Corbin's Fast Joint. Fast Joint, Narrow Loose Joint, Japanned. Loose Joint, Japanned. Loose Joint, Japanned. Loose Joint, Japanned. Loose Pin, Acorns. WROUGHT IRON.	dis 70&10&5 \$ Coopers* 7 Gradley's Barton's Barton's Barton's White	Ools	Yerkes & Plumb, A. E. Nail
neli Mig. Co. s Jennings' Bits (new list)dis 50&5 xpansive Bits, Clark's smali,\$18; l'ge,\$26. dis 33½,6355 xpansive Bits, Ives' No. 4, per doz., \$60.dis 356,636&5 xpansive Bits, Blake's\$20—dis 40	Mayer's Hinges. Loose Pin, Acorns, Japanned.	dis 70&10&5 % Albertson Mfg. dis 70&10&5 % John Beatty &	Co. dis 25 Co. dis 33½ 8.	Providence Tool Co., Hand Cuns, \$15.00 \$ doz
xpansive Bits, Ansonia	Fast Joint Narrow whought ilson. Fast Joint Lt. Narrow dis 60x. Fast Joint, Lt. Narrow dis 60x. Fast Joint, Broad dis 60x. Loose Joint, Broad dis 60x. Fast Joint, Broad dis 60x. Loose Joint, Broad dis 60x. Fast Joint, Broad dis 60x. Loose Pin, Wirth dis 60x. Loose Pin, Wirth dis 60x. Loose Pin, Light dis 60x. Loose Pin, Light dis 60x. Bronzed Wrought Butts. Spring Hinges:	5&10@60&73&10 # Humson & Be Clough's Paten Howe Bros. & 1 Corn Kniv	8. ckley Mfg. Co	Providence Tool Co., Leg Irona, 22.00 v usa. Tower's Daley's Improved Hand Cuffs: 2 Hands, Poll V doz, 481; Nickeled, 557; 3 Hands, Polish doz, 572; Nckeled, 584. Handles.—Door or Thumb Latches.
xpansive 1sts, Ansonia. dis 20 ollow Augers, Ves ollow Augers, Pench. Swift & Co. (dis 25&10 ollow Augers. Douglass' ollow Augers. Douglass' dijust, & dz. \$48. dis 40&10 ollow Augers, Stearns' Adjust, & dz. \$48. dis 40&10 ollow Augers, Stearns' Adjust, & dz. \$48. dis 20&10 ollow Augers, Ves' Expansive, cach \$4.50 dis 35 os 50 ollow Augers, Univ' Expan. cach \$4.50 dis 35 os 50	Loose Joint Broad	0@00&10&10&216 g 5&10@00&716&10 g 5&10@00&716&10 g 5&10@00&716&10 g Cradles.	es and Cutters. dis 10 dis 25 dis 40&5	Nos 0
oliow Augers. Univ'i Expan., each. \$4.50	Loose Pin, Wrt dis 60&10&10 Loose Pin, Light dis 60&1 Bronzed Wrought Butts. Spring Hinges :	0@60&10&10&236 % 5&10@60&736&10 % dis 45&5@45&10 % Tron, Steel Point		Jap'd Store Door Handles—Nuts, \$1.05; Finte. no Plate, \$0.88 Barn Door
ouble Cut Gimlet Bits, Shepardson's	Geer's Spring and Blank Butts Union Spring Hinge Co.'s. American Spring Hinge Co.'s Gem Spring Hinges	dis 33% s dis 25&10 g fitch's. dis 30 g Hotchkiss, Nov dis 30 g Hotchkiss, Exec	bs	Surrace Crest. Flush Chest. Lifting dispersion dispersion of the control of the
buble Cut Gimlet Bits, tves Gis 00 bltz Bit Stock Drills dis 25&10 Hommedieu's Ship Augers dis 15 @ 20 atrous's Ship Augers dis 15 @ 20	Bronzed W rought Butts Spinged W rought Butts Spinged Spring and Blank Butts. Curlon Spring Hinke Co.*s. American Spring Hinge Co.*s. American Spring Hinge Co.*s. Gem Spring Hinges Barker's Double Actins Union Mfg. Co. Bommer's. Buckman's Empire. Acme. Climax. Chicago. Blind Butts, Parker. Blind Butts, Parker. Blind Butts, Parker. Blind Butts, Parker. Blind Butts, Lul'erson	dis 20&10 dis 25 dis 26 dis	18ne	Brad Awl. Fgr Hickory Firmer Chisel, assorted. Fgross
ell's Ship Augers	Empire. Acme. Climax Chicago.	dis 60&10 % Catlery. dis 70&10 % American Pocks dis 30 a 30&10 % American Table	net price Net price \$7.75 @ \$8.00 to \$	Apple Firmer Chisel, assorted. # gross Apple Firmer Chisel, large. # gross Socket Firmer Chisel, assorted. # gross Cocket Firmer Chisel, assorted. # gross
AWI 18118 wing, Brass Ferrule	Blind Butts, Parker. Blind Butts, Palmer. Blind Butts, Seymour. Blind Butts, Lall & Porter.	dis 75&2 \$dis 50&5&10 \$dis 70&2 \$dis 75&2 \$dis 70&2 \$	### See Compasse ##################################	File, assorted
Awis, Brad Sets, &c. wis, Sewing, Common	Blind Butts, Nicholson	dis 45&10 % Leather, Pope & Brass, Pope & Si	Stevens' list	Patent Auger, Ives Patent Auger, Douglass'. Pact ! Patent Auger, Swan's Patent Augers.
NIS, Shouldered Brad. \$2.70 \(\) gross—dis 35 \(\) wis, Handled Brad. \$7.50 \(\) gross—dis 35 \(\) so \(\) gross—dis 35 \(\) (3.6 \(\) gross—dis 35 \	Blind Butts, Sargent's, Nos. 1, 3 Blind Butts, Sargent's, No. 12 Blind Butts, Reading's Gravity Blind Butts, Shepard's "Noiseless,"	dis 75&10 % Gray's Ge Rod	gular size	Barn Door, New England. Climax (Anti-Friction). Zenith Anti-Friction Wood Track.
ken's Sets, Awis & Tools # doz. \$10.00—dis 50&10 \$ llers Falls Adj. Tool Handles # doz \$12—dis 25 \$ sy's Adj. Tool Handles, No. 1 # doz \$12—dis 25 \$ sy's Adj. Tool Handles, No. 2 # doz \$12—dis 25 \$ sy's Adj. Tool Handles, No. 2 # doz \$18—dis 25 \$	Blind Butts, Micholson Blind Butts, Huffer, Blind Butts, Clark's, Nos. 1, 3, 5 Blind Butts, Manhattan Hardware Co Blind Butts, Sargent's, Nos. 1, 3 Blind Butts, Sargent's, No. 12. Blind Butts, Sargent's, No. 12. Blind Butts, Shepard's "Noiseless," 45 and 55 Blind Butts, Shepard's "Noiseless," Blind Butts, Shepard's "Gravity," 5.	8 75&10&5 @ 80 % No. 1, Large Ja No. 2, Medium, No. 3, Small, Ji Nos. 1, 3 and	panned	Wood Track, Iron Clad. Wit. of the order of the Challenge Champion "Medina Mfg Co
tent Peg. Leather Top.\$12.00 \$\pi\$ gross = dis \$40\times 10.65 \$\pi\$ \ \text{vis. B-trad Sets. Acc.} \text{vis. Shouldered Peg.} \$\pi\$ gross \$21.70 - dis \$5 \$\pi\$ vis. Shouldered Peg. \$\pi\$ gross \$2.6 - dis \$40 \$\pi\$ vis. Shouldered Peg. \$\pi\$ gross \$63\epsilon - dis \$40 \$\pi\$ vis. Shouldered Brad. \$\pi\$ 7.00 \$\pi\$ gross = dis \$5 \$\pi\$ vis. Shouldered Brad. \$\pi\$ 7.00 \$\pi\$ gross = dis \$5 \$\pi\$ vis. Handled Brad. \$\pi\$ 7.50 \$\pi\$ gross = dis \$5 \$\pi\$ vis. Handled Scratch. \$\pi\$ 7.50 \$\pi\$ gross = dis \$5 \$\pi\$ vis. Handled Scratch. \$\pi\$ 7.50 \$\pi\$ gross = dis \$5 \$\pi\$ vis. Handled Scratch. \$\pi\$ 7.50 \$\pi\$ gross = dis \$5 \$\pi\$ vis. Handled Scratch. \$\pi\$ 7.50 \$\pi\$ gross = dis \$5 \$\pi\$ vis. Handled Scratch. \$\pi\$ 7.50 \$\pi\$ gross = dis \$5 \$\pi\$ and \$\pi\$ 7.00 Handles. \$\pi\$ doz \$10.00 - dis \$5 \$\pi\$ adj. Tool Handles, No. 1. \$\pi\$ doz \$12 - dis \$25 \$\pi\$ vis. Adj. Tool Handles, No. 2. \$\pi\$ doz \$18 - dis \$25 \$\pi\$ dis \$25 \$\pi	5. North's Automatic Blind Fixtures, N 89: No. 3, for Brick, \$10.50. Shepard's "O. S." and "Acme"	No. 4, ("Shoo F] o. 2, for Wood, Lull & Porter No. 6, Medium. No. 7, Large	Face	Wood Track, Iron Clad.
od Seconds \$5 @ \$6	Ciark's Improved Shutter Hinge, Nos.	dis 75&10&5 5 0, 1, 1½, 2, 2½, d's 70 \$ Victor (Coil) Chambion (Coil) Philadelphia Cowell's No.		U. S. dis The "Boss" Best Anti-Friction. Duplex (Wood Track)
x c c c c c c c c c	Butcher's Cleavers. Humason & Beckley Mfg. Co. Bradley's. Beatty's. \$16.50 19.00 21.50 24.00 27.00 30.00	dis 30 x dis 25 x dis 33\absolute{5} x dis 33\absolute{5} x Elliott's Door Cheel	e	Terry's Patent. # doz. pr., 3½ in., \$10; \$12 dis Cronk. No. 4, \$12; No. 5, \$14.40; No.
ag Holders. Sprengle's Pat., ₹ doz \$18 dis 60 %	1 2 3 4 5 6 \$16,50 19,00 21.50 24.00 27.00 30.00 New Haven Edge Tool Co.'s		aivesdis 75@75&10 g erbydis 75 @ 75&5 g dis 65&10 g	Architect. \$\psi\$ set \$0.00, Eclipse. db Felix. \$\psi\$ set \$\psi\$.50, Hamilton Wrought db 50 @
lances	\$16.50 19.00 21.50 24.00 27.00 30.00	See Compasses L. & I. J. White. Bradley's. Adjustable Hand	CCs and Spring dis 20 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Richards', (lots of 50 sets dis 20&10&10 \$), dis 1 Lane's Steel Anti-Friction. dis 2 The Ball Bearing Door Hanger dis 20&10 @ 2
distribute dis	Duplex # doz Lyman's # doz No. 4. French # doz	25¢, dis 15 @ 20 % loz \$3.75, dis 20 % loz \$2.25, dis 55 % loz \$2.25, dis 55 % loz \$0.00, dis 45 % locksmiths' Self Breast, P. S. & W	le dis 20@20&5 \$ rill Stocks . each, \$1.00 @ \$1.75 Feeding .each, \$7.50, dis 20 \$.each, \$1.00 @ \$1.75 Feeding .each, \$7.50, dis 20 \$.dis 20 \$2 .dis 20 \$	The Ball Bearing Door Hanger dis 20x10 6 2 Harness Snaps. Anchor (T. & S. Mfg Co.) Henshaw's, list of 1½ changed to \$14.00. Judd's, list of 1½ changed to \$14.00. Fitch's (Bristol), list of 1½ changed to \$14.00. Hotchkiss Andrews Sargent's Patent Guarded. German, Jol list. German, Jol list. German, Sargent's new list. Govert. Covert, New Patent, new list. Governey's Pat. Safety, new list. dis 60 Mencely's Pat. Safety, new list. dis 60 Mencely's Pat. Guard. new list. dis 60 Mencely's Pat. Chain Link. dis 6 Mencely's Pat. Chain Link.
g, Abbe's dis 25&10 5 g, Yankee dis 40&10 5 g, Barton's dis 40&10 5 ng, Taylor's dis 25&10 1	Sardine Scissors. # dog Star # dog No. 1 82 No. 2 82 25 No. 3 1	Oz \$2.50, dis 10 % Oz \$7.00, dis 55 % \$5.00, dis 25 % 5 % 5 6 0, dis 25 % 5 % 5 % 6 % 6 % 6 % 6 % 6 % 6 % 6 %	dis 20 5 dis 30&5 \$ lis each, \$3.00 dis 25 \$ new's each, \$2.50, dis 25&10 @ 40 \$	Hotchkiss
nk, Brooks'. dis 50&10&2 % nk, Cone's . dis 10 % nk, Connel's . dis 20&10 % er, Sarsent's . dis 60&10 %	"World a Best," # gross, No. 1, \$12.0 No. 3, \$36.00. Universal # doz	0; No. 2, \$24.00; dis 50&10 g \$3.00, dis 35&5 g 25.00, dis 45 g Ratchet, Merrill's Ratchet, Ingersol Ratchet, Weston'	dis 20 \$ dis 25 \$ s	German, old 18stdis 60&10 @ 60&1 Covert
er, Taylor's Bronzed or Plated net er, Taylor's Japanned dis 25&10 s er, R. E. M. Co.'s dis 50&10&2 \$ Brook's dis 50&10&2 \$	Onwersal Champion. # d Caps—Percussion. # 1000. Hicks & Goldmark's	oz \$2.00, dis 50 s Whitney's Hand \$12.00. Wilson's Drill Sto	Drill, Plain, \$11.00; Adjustable, dis 20&10 \$\\ \text{cks}\\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.	Meneely's Pat. Safety, new list. dis 6 Meneely's Pat. Guard, new list. dis 6 Meneely's Pat. Chain Link dis 6
Western dis 25&10 % dis 40 % dis 60 % Common Wrought dis 60&10 % Western dis 20&10 %	Champion.	8.70¢dis 25 % Drill Chucks Morse's Beach Par Morse's Adjustable		
Common Wrought Comm	G. D. S. B. S. B. Genuine Imported.	Danbury Dripping Par 30¢ Dripping Par 80¢ Buffalo, S. S. & Co	each, \$8.00, dis 30 @ 30&5 %	Claw, Nos. 1.2 3. # dos 7.55 8.90 Lathing, Nos. 1.2 3. # dos 7.50 8.00 Hunt's Shingling, Nos. 1.2 3. # dos 87.25 \$8.00 Claw, Nos. 1.2 3. # dos 87.25 \$8.00 Lathing, Nos. 1.2 3. # dos 7.50 8.25 Lathing, Nos. 1.2 3. # dos 8.00 \$8.50 Lathing, Nos. 1.2 3. # dos 8.00 \$8.50 Claw, Nos. 1.2 3. # dos 8.00 \$8.50 Lathing, Nos. 1.2 3. # dos 8.00 \$8.50 Claw, Nos. 1.2 3. # dos 8.00 \$8.50 Claw, Nos. 1.2 3. # dos 8.00 \$8.50 Claw, Nos. 1.2 3. # dos 8.00 Shingling, Nos. 1.2 3. # dos 8.00 Shingling, Nos. 1.2 3. # dos 8.00 Claw, Nos. 1.2 3. # dos 8.00 Shingling, Nos. 1.2 3. # dos 8.00 Claw, Nos. 1.2 3. # dos 8.00 Claw, Nos. 1.2 3. # dos 8.00 Claw, Nos. 1.2 3. # dos 8.00 Shingling, Nos. 1.2 3. # dos 8.00 Claw, Nos. 1.2 3. # dos 8.00 Shingling, Nos. 1.2 3. # dos 8.00
18. 0 1 1% 2 3 4 5 6 7 Hog \$12,00 10,00 9,00 8,00 6 00 5,00 4,00 3,00 2,50 5,00 Texas Star	Eley's D Waterproof, Central Fire U. M. C. F. C. Trimmed	.50¢ .50¢ National. .70¢ dis 25 s Standard	# 000 \$4.50 dis \$2.50 g. Co.) # dos \$4.50, dis \$334 g. g. Co.) # gro, \$17.00g\$18.00 % gro, \$2.00 % gro, \$2.00 % gro, \$2.00 fig. Co.) # gro, \$2.00 fig. Co.) # gro, \$10.50g\$11.50	Hurd's
m Bells.	U. M. C., Double Waterproof, Double Waterproof, in 1-10's. Musket, in 1-10'.	\$1.40 1.40 Kingston	% gro, \$8,00 ⊕ gro, \$8,00 (fg. Co.).	Yerkes & Plumbdls 40&10@40&: Shingling, Nos. 1 2 3 # doz \$7.50 \$8.00 { Claw, Nos. 1 2 3 # doz 8.25 8.75 Lathing, Nos. 1 2 3 # doz 7.50 8.00
d Bellowsdis 40@40&10 %	Central Fire	dis 3314@40 % Flour and F. F	and Cloth, see Sand Paper. d Tinued Ware.—See Hollow-	Underhill Edge Tool Co
Belting & Packing Co., Standard. dis 50s-60&10 s. Belting & Packing Co., Extra Standard. dis 50s eland Rubber Co., Extra Standard. dis 50s eland Rubber Co., Extra Standard. dis 40s 40s dis 50s eland Rubber Co., Extra Standard. dis 40s 40s dis 50s eland Rubber Co., Extra Standard. dis 40s 40s dis 50s eland Rubber Co., Extra Standard. dis 40s 40s dis 50s eland Rubber Co., Extra Standard.	Brass and Paper Shells. Kelsey, Brass Shells, lat quality. Kelsey, Brass Shells, 2d quality. Kelsey, Paper Shells, No. 10, lat quality. Kelsey, Paper Shells, No. 12, lat quality. Kelsey, Paper Shells, No. 12, dquality. Kelsey, Paper Shells, No. 12, 2d quality. Kelsey, Paper Shells, No. 12, 2d quality.	9 100 \$2.75 Ware.	ins	Lathing, Solid Steel
111's \$ doz \$7.50 dis 40&5cc40&10 \$	Kelsey, Paper Shells, No. 12, 2d quality Cards Horse and Curry			Lathing, Nos. 1 2 3. # dos 8.50 Nos. 1 2 3. # dos 8.50 Broad, Nos. 1 2 3. # dos 11.00 13.50 1 Simmons. dis 35.6
Holders	Wool Carpet Stretchers. Cast Steel, Polished. ♥ do Cast Iron, Steel Points ♥ do Socket ♥ do Bullard's.	2 \$5.00, dis 50 g z \$1.00, dis 15 g Star.	ubber Ball	Claw, Nos. 0 1 2 3. 4 dos 8.60 9.00 Lathing, Nos. 0 1 2 3. 4 dos 8.00 8.50 Broad, Nos. 1 2 3 4. 4 dos 9.00 10.00 12.00 1
estic	Socket	# 42.50, dis 25 % dis 25 % West's Patent Key Anchor Lock	dis 45 % dis 45 % dis 60 % dis 60 %	Broad, Nos. 1 2 3. • • dos 11.00 13.50 1 dis 35 6 Shingling, Nos. 0 1 2 3. • dos \$7.00 \$8.
Ind Fasteners	Carpet Sweepers. Blasell No. 5. Blasell No. 7 New Drop Pan. Blasell No. 12 Hall Sweeper. Mystic. Octtage. Sarland. Queen. User. User. User. User. User. User.	# doz \$19.00 doz \$42.00 J. Sommer's Best E J. Sommer's Diamo J. Sommer's Diamo	dis 25	Lathing, Nos. 1 23.
Durn's Old Pattern	Jarland			Half, Nos. 1 2 3.
ed, & in. and larger	Plate	dis 00&10 ± J. & Riley Carr Hor Moss & Gamble	ne Raspsdis 16 %	"Lightning"
e Blocks, &c	shallow Socket. Deep Socket. Faic Casters, reduced list May, 1884 Martin's Patent (Phemix). Payson's Anti friction Giant" Truck Casters. Stationary Truck Casters.	dis 25% 25% 10 % dis 40% 10 % dis 60 % Cheaper domestic	New list, April 1, 1883, dis 15 5 se Rasps. dis 16 5 New list, dis 15 5 New list, dis 15 5 stic make, according to brand dis 90 6 90&10 5 files. dis 90&10 5 Pat. Tapers. dis 26 6 dis 2	Hinges. Gate, Western # dos \$4.40, dis Gate, N. E. # dos \$7.00, dis
He ron Barrel, Square, &c. dis 60&10 · 10 · 6 · 70 · 5 ron Shutter Bott - 6 · 6 · 6 · 6 · 6 · 6 · 70 · 5 ron Chain (Sarcent's Hst.). dis 60&10&10 · 6 · 70 · 5 each Door Botts - dis 60&10&10 · 6 · 70 · 5 each Door Botts - dis 60&10 · 6 · 70 · 7 each Door Botts - dis 60&10 · 6 · 70 · 7 each Door Botts - dis 60&10 · 7 each	Stationary Truck Casters Cattle Leaders. Jumason, Beckley & Co.'s. argent's. Jotchkiss. eek, Stow & W. Co.	dis 45&10 Stubs	dis 25 @ 30 %	Gate, Clark's, Nos. 1 2 3. dis 60&10 Gate, N. Y. State. \$\psi\$ dos \$5.00, dis 35.00, dis 35.00
Shutter, all Iron, Stanley's list, dis 508 108 108 5	dechkiaseek, Stow & W. Co	dis 50&10 \$dis 50&10	18. \$3.25 each \ dis 35 \ 5 \ \$3.50 each \ dis 35 \ 5 \ \$3.60 each \ dis 35 \ 5 \ \$2.15, dis 35 \ 5 \ \$2.15, dis 35 \ 5 \ \$2.85, dis 35 \ 5 \ (-5.1a, \$8.60; 8.1a), \$8.50 each, dis 35 \ 5 \ (-5.1a, \$8.40; 7.1a), \$8.45 each, dis 35 \ 5 \ 1.50 each, dis 35 \ 5 \ 7. White Metal \$4.60 each, dis 35 \ 5 \ 7. Nos. 1, \$15; 2, \$12.50; 3, \$10.00, \$\\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	late, Seymour's
cht Shutter, Sargent's IIst dis 60&10&5 g 1 cht Sunk Flush, Sargent's dis 60&10&5 g 1 cht Sunk Flush, Stanley's dis 40&10&5 g 1 cht B. K. Flush, Com'n Stanley's dis 55 g 1	race, 6!4-10-2	American, 5-in., \$3; Domestic Fluter	6-in., \$3.40; 7-in., \$4.50 each, dis 35 \$	Rolled Blind Hinges
ght Barrel dis 60&10 6 70 5 dit Square dis 60&10 6 5 dit Square dis 60 6 80 6 5 dit Square dis 60 6 80 6 80 6 5 dit Square dis 60 6 80 6 80 6 80 6 80 6 80 6 80 6 80	Chain. 'race, 614-10-2	dis 55&5 % doz. 7-16 Shepard Hand Flut Shepard Hand Flut Shepard Hand Flut	er, No. 85. # dos \$15.50 dis 39 g er, No. 110. # dos \$1.50 dis 39 g er, No. 110. # dos \$1.1 dis 40 g er, No. 100. # dos \$1.0 dis 334 g er, No. 100. # dos \$1.00 dis 334 g dis 30 g er, No. 100 dis 30	Walsh Palent P dos \$13.5
Gorway, Phil., 11st Oct. 16, 84	leneely's Breast, Halter and Hitching.	dls 50&10 \$ Buffalo	r	14 in. # up. # # dos \$1.50
ne dis socioles s	neida Halter Chain (old list)	8 65&10 @ 70 \$ Faragon		
	Chalk. Fhite totale Crayons Chalk Lines.—See Lines		oading dis 60&10 & 60&10&10 \$\frac{1}{2}\$ Figure 1	arden, Mortar, &c. dis ouer os over to a design
ns with Aurors 7.00 7.50 not	Chalk Lines.—See Lines Chiseis. ocket Framing and Firmer	enterprise Mfg. Co. Fry Pans. Ceutral Stamping C No	y Presses	tove Hollow-Ware, Ground and Unground
ers Pat, Reg. Bed. 6,56	Chisels. oket Framing and Firmer. Buck Bros. oket Framing and Firmer, Buck Bros. oket Framing and Firmer, Merili. oket Firmer, Framing, &c., L. & I. J. Wh. oket Firmer, Framing, &c., L. & I. J. Wh. oket Framing Firmer, &c., Crossman. anged Firmers, Buckher's. anged Firmers, Buckher's. anged Firmers, Spear & Jacgson's. anged Hirmers, Buck Bros.	dis 65&10 % doz\$1.50 1. dis 65&10 % doz\$1.50 1. Acme auges. dis 65&5 % Marking.	dis 60 \$	nameled and Tinned Hollow-Ware—dis 60,600. Get Bollow, Saucepans and Glue Potsdis roy Enameled Waredis ustless Hollow-Waredis 5085-608 alvanized Tea. Kettles—dis 5085-608
Son. Beckley & Co.'s, Nos 1 and 2dis 60&10 \$ T son Beckley & Co.'s other Nos	('lamba	## 35.00 to £ ## 35.00 to £ ## dis 30 \$ ## Nail and Spike	den & Co	Inch6 7 8 9
Stow & W. Co	Clamps.	dis 25 % "Eureka" Gimlets. dis 20 % Double Cut, Shepare dis 20 % Double Cut, [ves]	dis 40&10 % B	Hooks. Ird Cage, Sargent's list
r's, Nos. 31 to 33. dis 40&10 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	on, Providence Tool Co.'s Wrought Irot on, Adjustable, Gray's. on, Adjustable, Lambert's. on, Adjustable, Lambert's. on, Adjustable, Hammer's. on, Adjustable, Hammer's. on, Cathettsbe, Stearns' on, Cathett Sargent's. on, Carriage Makers', Sergent's. on, Carriage Makers', dispensive the sargement of the sargemen	dis 15 % Bee Bee Office Pots. dis 70&10 % Trinned and Enamele	s'	otton Patented (N. Y. Mallet & Handle W'ks), dis
10 10 10 10 10 10 10 10	on, Carriage Makers', Sargent's di on, Ebernard Mfg. Co dis 40 W Clamps . Clips. Axle. grway or Best	\$\frac{\pi}{\pi}\$ 40\pi 10\pi \text{Family. Howe's "Extensity. L. F. \pi C.'s \text{Grindstone Fix} \text{Grindstone Fix} \text{Sargent's Patent.}	ed	otton (sumason a Beckiey Mig. Co. Cils Soft Rosel elt. dis 80g800 ench Hooks. See Bench St tothes Line, Sargent's list. dis 60% (so tothes Line, Reading list. dis 60% (och elling, Sargent's list. dis 60% (och arness, Reading list. dis 60% (och dis 60%
011 S O G 5085 \$ 0 olomew's, Nos. 25, 27, 30 dis 5085 G 5081085 \$ 0 olomew's, Nos. 117, 118, 119 dis 65 \$ Nos. 117, 118, 119 dis 60 G 6085 \$ 0 or \$	Coal Vases. Classifiato Palace, S. S. & Co	.dis 30&10 5 U. M. C. B. E., 11 up.	dis 35&10 % C	oat and Hat, Sargent's list
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ourrein narn	Wa
Brackets. Shelf, plain, Sargent's list	\$10 % H
Brackets. Shelf, blain, Sargent's list	20%5 % P
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Buil Rings. dis Union Nut Co. dis Sargent's. dis 66848 Hotchkiss' low list. dis Humason, Beckley & Co.'s. dis 708 Peck, Stow & W. Co.'s. dis 508	55 % C
Humason, Beckley & Co.'s dis 70% Peck, Stow & W. Co.'s dis 50% Butts Wrought Brass dis 80 @ 80	10 % B
Butts Wrought Brass Gas Brass, Tebout's dis Cast Brass, Corbin's Fast Joint dis 335-36 Cast Brass, Corbin's Fast Joint dis 335-36 Cast Brass, Loose Joint dis 335-36 Fast Joint, Marrow dis 60&10- Loose Joint, Broad dis 60&10- Loose Joint, Japanned dis 70&10- Mayer's Hinges. dis 70&10- Mayer's Hinges. dis 70&10- Mayer's Hinges. dis 70&10- Loose Pin, Acorns, Japanned. dis 70&10- Loose Pin, Acorns, Japanned. dis 70&10- Loose Pin, Acorns Japanned. dis 70&10- Loose Pin, Acorns Japanned. dis 60&5&10&60&75&2- Fast Joint, L. Narrow dis 60&5&10&60&75&2- Fast Joint, Broad, dis 60&5&10&60&75&2- Fast Jo	40 % Be 10 % E:
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Loose Joint, Jap. with Acorns	85 % L. 85 % Al 85 % Jo
Loose Pin, Acorns, Japanned	\$5 % Hi \$5 % Hi
Fast Joint, Lt. Narrow	10 % 10 % 10 % 10 % W
Inside Blind, Regular	10 % Gr 10 % Gr 36 % Ca
Bronzed Wrought Butts. dis 45&5@45&3 Spring Hinges: dis 33 Geer's Spring and Blank Butts. dis 33 Union Spring Hinge Co.'s. dis 25&1	10% fro
American Spring Hinge Co.'s	30 % Ho 30 % Ho 10 % Ru
Bommer's dis 2 Buckman's dis 5 Empire dis 60&1 Acme dis 7	25 % Sil
Climax dir 50&1 Chicago dis 30 a. 30&1 Blind Butts, Parker dis 75& Blind Butts, Palmer dis 50&5&1	0 % An Wo
Rlind Butts, Seymour	0 % Em 0 % Les 0 % Bra
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Blind Butts, Reading's Gravity dis 75&1 Blind Butts, Shepard's "Noiseless," Nos. 50, 60, 65 45 and 55. dis 75&10&5 68 Blind Butts, Shepard's Champion Gravity, No. 75	0 % Wa Ger N
Blind Butts Shepard's "Gravity," Nos. 1, 3 and 5	o % No
\$N: No. 3, for Brick, \$10.50. Shepard's "O. S." and "Acme" Lull & Porter	No.
Loose Pin, Light. dis 60&55e10e608.75&5 Fronzed Wrought Butts. dis 45&56e45&2 Spring Hinges: dis 45&56e45&2 Spring Hinges: dis 35 Union Spring Hinge Co. s. dis 26&2 American Spring Hinge Co. s. dis 26&2 American Spring Hinge Co. s. dis 26&2 Geer's Spring and Blank Butts. dis 25&1 Geer Spring Hinges . dis 26&2 Linion Spring Hinges . dis 20&2 Union Mig. Co. dis 35 Empire. dis 20&2 Union Mig. Co. dis 35 Empire. dis 60&5&6 Empire. dis 60&5 Empire.	Phil Cow Rub
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Musket Waterproof, 1-10's 5.0 G. D. 28 S. B. 30 B. Genuine Imported 45 ley's R. 45 ley's D. Waterproof, Central Fire 50e M. C. F. C. Trimmed 70e M. C. Cent. Fire Ground 70e M. C. Couble Waterproof, \$1.40 ouble Waterproof, \$1.40 usket, in 1-10's 1.40 carridges. 50	Es
M. C. Cen. Fire Ground 70¢ dis 25	Fami Stand Kings Acme
im	g Regu
entral Fire	En: Ware Brass
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Carpet Stretchers 1	
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stage # doz \$15.00 rland # doz \$19.00 een # doz \$16.00 een # doz \$18.00	J. Son J. Son Self-M Self-M
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rerican Cott 3-16 4 5-16 3 7-16 4 20.336 .0034 .054 0436 .041	Shepar Shepar Clark's Combi
neely's Breast, Haiter and Hitchingdis 50&10 s neely's Pat. Sleeve-Snap Breastdis 50&10 did Haiter Chain (old list)dis 45 s vanized Pump Chainb 15 55g e 65g c & Chain, Irondis 70&5 e 75 g & Chain, Brassdis 60&10 e 70 g	kly Parago
k Chain, Brass	For Hay, M Plated Free
halk. \$\frac{1}{2}\$ gro 55e tte. \$\frac{1}{2}\$ gro 65e e. \$\frac{1}{2}\$ gro 65e e. \$\frac{1}{2}\$ gro 65e e. \$\frac{1}{2}\$ gro 65e te Cravons. \$\frac{1}{2}\$ gro 75&10 \$\frac{1}{2}\$ hisels. \text{dis 75@75&10 \$\frac{1}{2}\$ \text{set Framing and Firmer, Buck Bros. \text{dis 80 \$\frac{1}{2}\$ \text{set Framing and Firmer, Merrill. \text{dis 526.5} \text{set Framing Firmer, &c., Crossman. \text{dis 636.5} \text{ged Firmers, Butcher's. \text{dis 636.5} \text{ged Firmers, Butcher's. \text{45.00 to 2} \text{ged Firmers, Buck Bros. \text{dis 30.5} \text{damps. \text{dis 30.5}	Enterp
ket Framing and Firmer	Ceutra No doz. Acme
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alo Common, S. S. & Co	U. M. C

are Prices,	Ap
Cocks, Bruss, dis 6 Racking. dis 6 Globe dis 6 Plain Bibbs dis 6 Ale and Beer. dis 6	5&5 % U. M 5&5 % Eley 5&5 % Eley
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Compasses. Dividers. &c Compasses. dis 60&10& Calipers. dis 60&10& Dividers. dis 60&10& Bemis & Cali Co.'s Dividers. dis 60&10& Bemis & Cali Co.'s Compasses & Calipers. dis 60& Bemis & Cali Co.'s Wing & Inside or Outside.dis 50 Bemis & Cali Co.'s Wing & Inside or Outside.dis 50 Bemis & Cali Co.'s (Cali's Patent Inside). dis Bemis & Cali Co.'s (Cali's Patent Inside). dis	10 % Mene
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Champion (Coll) dis 50&10 & 10&10&10 Philadelphis Cowell's No. 1, # doz \$18.00; No. 2, \$15.00, dis 56 Rubber, complete # doz \$2.20, dis 20&10 Hercules Hercules	The "B Best Ai Duplex Terry's \$12
Shaw Door Cheek and Spring	Archite Eclipse Felix Hamilt Richard Lane's The Bal
Blacksmiths' each, \$1.60 @ \$1.	75 Anchor
Slacksmith' Self-Feeding each, \$7.50, dis 20 Sreasf, P. S. & W dis 46&10 Sreasf, Hotchkiss dis 20 Sreasf, Hotchkiss dis 20 Sreasf, Millers Falls each, \$5.00 dis 25 Sreasf, Millers Falls each, \$5.00 dis 25 Sreasf, Bartholome w' each, \$2.50, dis 20 dis 20 tatchet, Merrill's dis 20 dis 20 tatchet, Weston's dis 20 tatchet, Weston's dis 20 tatchet, Woore's Triple Action dis 25 dis 20 villeny's dis 20 dis 20	Andrew Sargent German Covert Covert Covered Meneely
12,00 dis 20&10 Vilson's Drill Stocks dis 10 Vilson's Drill Stocks dis 10 Uttomatic Boring Tools each, \$2.25, dis 20 Drill Charks each, \$8.00, dis 20 @ 20&5 Orne's Beach Fatent each, \$8.00, dis 20 @ 20&5 Orne's Adjustable each, \$8.00, dis 30 @ 30&5 Dripping Paus each, \$8.00, dis 30 @ 30&5 Utfalo, S. S. & CO # 3.54	Meneely Meneely Hatch Isaiah B Shingl Claw, Lathin
Dripping Pans.	Shingle Claw, Lathin Hurd's Shingle Claw, Lathin Lathin Lathin Lathin Lathin
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ureka ** Ginlets dis 40&10 \$ lamond ' Gimlets dis 40&10 \$ ible Cut, Shepardson's dis 45 \$ ible Cut, Fves dis 50 \$ ible Cut, Fouglass' dis 40 \$	Galvanized Inch Each Hooks. Bird Cage, Bird Cage, Cotton Cotton Pat
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5%	Covert's Ju Meneely's I Meneely's Ties Hamme	te Horse ar Pat. Adjust Hemp ar rs.—Mayde	ad Cattle able Hen id Jute	Ties ap and Ju Horse	itedis 50 and Cati dis 50 dis 15 dis 20	ls 60 % 0&10 % tle 0&10 % 0&10 %
******	Hartford H. Buffalo Har C. Hammon Humason & Verree	ammer Co. nmer Co d & Son Beckley	's Nail H	am'sdis	25&5@25 dis 30 (lis40&10 (dis 15 (& 10 % 2 35 % 2 50 % 2 25 % dis 5 %
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× (e	# doz, \$48 doz, \$72; 1 Handles Nos	tches. Drop Latel Door Hand 0.88.	hesNut	8, \$1.62; I doz. \$1.	32¢ @ 37 @ doz. 70 Plate, \$1.:	¢ net ¢ net 10; net &10 %
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XXX	Patent Auger Patent Auger Patent Auger Hangers. Barn Door, of	r, Ives' r, Douglass' r, Swan's d patterns		d	set \$1.20 set \$1.00	25 % net net
200	Hangers. Barn Door, N Climax (Anti- Zenith Anti-I Wood Track. Reed's Steel	ew England Friction) Friction Wolfron Clad.	ood Trac	k . dis 50	dis dis \$5 @ 50& dis dis	55 % 55 % 10 % 40 %
	"Champion" Sterling Impr Double Cut, E Victor, No. 1, Cheritree	Medina Mi roved (Anti fartwell's. \$15; No. 2,	Friction \$16.50;	No. 3, \$18	dis 65& dis 40& dis 50& dis 50&	10 % 1 10 % 1 10 % 1 82 % 1 85 % 1
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FETT	elix Iamilton Wro Ichards'(lo ane's Steel A he Ball Bear	ts of 50 sets inti-Frietic ing Door H	dis 20& nanger	10&10 f).	.dis 20&1 .dis 25&1 [0 @ 25&1	10 % T
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LA	Lawu Mowers So dis 200	
Si	Nos. 0, \$6.00; No. 1, \$6.50; No. 2, \$7.00; No. 3, \$7.50 \$\text{ gross.} \text{ gross.} dls 25 \$\cdot s\$ asons' Linen, No. 3)\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
W	E2.50	
Re	ire Clothes, No. 18, \$8.50; No. 19, \$1.00; No. 20, £2.50. Locks, Padlocks, Cabinet Locks, &cc. bor Locks, new list, bec. 10, %4. Some numbers changed February 5, 1885. did 66%&bc2 sading Hardware Co. (list Feb. 2, 1885). dis 33%&2 fate. dis 33%&2 fate. dis 35% fate.	
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April 16, 1885.	
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Wire Carpet Nails. See Tacks Nail Puller. \$\pi\ \dot as 90.00 ne	Wh Cor
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Post Hole and Tree Augers and Diggers. Samson Post Hole Digger. \$\psi \text{ dox \$806.00, \text{ dis \$204.10 \circ}\$}\$ fletcher Post Hole Augers \$\psi \text{ dox \$806.00, \text{ dis \$204.10 \circ}\$}\$ fletcher Post Hole Augers \$\psi \text{ dox \$806.00, \text{ dis \$205.00 \circ}\$}\$ fletcher Post Hole. \$\psi \text{ dox \$816.00 \circ}\$\$ fletcher Post Hole. \$\psi \text{ per dox }\$\$ \$\frac{15.40}{2.50.00}\$\$ fletcher \$\psi \text{ dox \$10.00 \circ}\$\$ fletcher Post Hole. \$\psi \text{ per dox }\$\$\$ \$\frac{15.40}{2.50.00}\$\$ fletcher \$\psi \text{ dox \$10.00 \circ}\$\$ fletcher \$\psi	Chat
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Hoosier. Praning Hooks and Shears. Disaton's Combined Pruning Hook and Saw. \$\psi\$ dos \$18.00. Disaton's Pruning Hook. \$\psi\$ dos \$12.00\$, dis 20\$210 \$\psi\$ E. S. Lee & Co. \$\psi\$ Pruning Tools. \$\psi\$ dos \$12.00\$, dis 20\$210 \$\psi\$ Fruning Shears. \$\psi\$ dos \$12.00\$, dos \$42.00\$, dis 20\$210 \$\psi\$ Wheeler \$\psi\$, \$\pri\$ Combination. \$\psi\$ dos \$12.00\$, dis 20\$5, buning \$\psi\$ Saw and Chisel. \$\psi\$ dos \$8.50\$, dis 30 \$\psi\$	Port
Pruning Shears. \$\pi\$ dos \$8.75 \otimes \$4.00 \text{ net}\$ Henry's Pruning Shears. \$\pi\$ dos \$4.50 \text{ net}\$ Wheeler. M. & Co.'s Combination. \$\pi\$ dos \$12, \dis 20 \sigma \$4.58 for \$3.50 \text{ for \$	Doug Dissi Dissi
Pulisys. Hot House, Awning, &c	Buck Stan Stan
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Rail Sliding Door, Wrought Brass # \$ 35¢,dis 20@25 \$ Skiding Door, Bronzed Wrt. Iron # foot 125, dis 85 \$	Flat
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and trons. From 4 to 10, at factory. \$\psi\$ 100 B \$2.25 @ \$2.50 \$	Hussey Lehigh Payne R. T. F R. T. F
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Sash Locks Clark's No. 1, \$10.00; No. 2, \$8.00 \(\psi \) gross dis 33_2 \) Ferguson's dis 33_3 \) Ferguson's dis 33_3 \) Morrie' Triumph (revised list) dis 60 \(\psi \) Morrie' Triumph (revised list) dis 10 \(\psi \) Atwell Mfg. Co. dis 33\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Jan Warmen
Spring Lake, A Quality 50 cg 55¢, dis 10&10&5 \$ Sash Locks. Clark's No. 1, \$10.00; No. 2, \$8.00 \(\psi\$ gross. \) dis 33\(5 \) \(\psi\$ ferguson's. \) Clark's No. 1, \$10.00; No. 2, \$8.00 \(\psi\$ gross. \) dis 33\(5 \) \(\psi\$ ferguson's. \) Morrie' Triumph (revised list). \(\psi\$ dis 60\(\psi\$ 10 \) \(\psi\$ Mattvell Mfs. Co. \) Mattwell Mfs. Co. \(\psi\$ dis 33\(\psi\$ 60 \) \(\psi\$ \) Attwell Mfs. Co. \(\psi\$ dis 33\(\psi\$ 60 \) \(\psi\$ \) Hammond's Window Springs. \(\psi\$ dis 63\(\psi\$ 60 \) \(\psi\$ \) "Common Sense," Japanned, Coppered and Bronzed. \(\psi\$ gross \) "Common Sense," Nickel Piated. \(\psi\$ gross \) "Common Sense," Nickel Piated. \(\psi\$ gross \) "Common Sense," Nickel Piated. \(\psi\$ gross \) "Common Sense," \(\psi\$ dis 60\(\psi\$ 60 \) \(\psi\$ \) "Common Sense," \(\psi\$ dis 60\(\psi\$ 60 \) \(\psi\$ \) "Common Sense," \(\psi\$ dis 60\(\psi\$ 60 \) \(\psi\$ \) "Empshall's Model. \(\psi\$ dis 60\(\psi\$ 60 \) \(\psi\$ \) "Engshall's Model. \(\psi\$ dis 60\(\psi\$ 10 \) \(\psi\$ \psi\$ \psi\$ \) "Fayson's Perfect. \(\psi\$ dis 60\(\psi\$ 10 \) \(\psi\$ \psi\$ \psi\$ \psi\$ \text{ance}, \text{dis 50} \\ \psi\$ \psi\$ \text{ance}, \text{dis 50} \\ \psi\$ \text{ance}, \text{dis 50} \\ \psi\$ \text{ance}, \text{dis 50} \\ \psi\$ \text{dis 50} \\ \text{dis 50} \\ \text{dis 50} \\ \psi\$ \text{dis 50} \\ dis	I STAN
Sausage Stuffers or Fillers. Miles "Challenge" \$\frac{1}{2}\$ doz. \$20. dis Perry \$\frac{1}{2}\$ doz. \$20. dis Perry \$\frac{1}{2}\$ doz. \$0. dis \$2.\$ dis 4.5 Perry \$\frac{1}{2}\$ doz. \$0. dis \$2.\$ fatterprise Mig. \$0. dis \$2.\$ fatterprise Mig. \$0. dis \$2.\$ Silvor's \$dis 25 \$\frac{1}{2}\$ Silvor's \$dis 25 \$\frac{1}{2}\$ Diaston's Circular, Mill and Cross Cut. \$dis 45.8 log Diaston's Hand, Panel, Rip. &c \$dis 20.8 log \$\frac{1}{2}\$ dis 20.8 log \$\f	E E E
Atkins' Silver Steel Circular dis 40 % Atkins' Selected Steel Circular dis 50 % Atkins' Concaved Tooth Dexter X Cuts	G LEHOH
Staws Disston's Circular, Mill and Cross Cut. dis 45x10 5 Disston's Hand, Panel, Rip. &c. dis 20x10 5 Disston's Hand, Panel, Rip. &c. dis 20x10 5 Disston's Hand, Panel, Rip. &c. dis 20x10 5 Atkins' Silver Steel Circular dis 40 5 Atkins' Selected Steel Circular dis 40 5 Atkins' Concaved Tooth Dexter X Cuts. \$\frac{1}{2}\$\$ foot 34 \$\epsilon\$ Atkins' Concaved Tooth Dexter X Cuts. \$\frac{1}{2}\$\$ foot 34 \$\epsilon\$ Atkins' Concaved Tooth Dexter X Cuts. \$\frac{1}{2}\$\$ foot 32 \$\epsilon\$ Atkins' Concaved Tooth Dexter X Cuts. \$\frac{1}{2}\$\$ foot 32 \$\epsilon\$ Wheeler, Madden & Clemson Mfg. Co.'s Hand. W. M. & C. Champion X Cuts. Regular. \$\psilon\$ foot 30 \$\epsilon\$ W. M. & C. X Cuts. Thin Back. \$\psilon\$ foot 30 \$\epsilon\$ Simond's Circular. dis 35 \$\frac{1}{2}\$\$ Simond's Circular dis 35 \$\frac{1}{2}\$\$ Simond's Circular and Mill \$\price Construction Constr	ASSSTTA ACC
Saws dis 25&5 5	CHEGTTE
Stillman's Genuine \$\Phi\$ dos \$5.00 and \$7.75, dis 40&5 \$\frac{1}{2}\$ Stillman's Imitation. \$\Phi\$ dos \$3.25 and \$5.25, dis 40&5 \$\frac{1}{2}\$ Common Lever \$\Phi\$ dos \$2.00, dis 40&5 \$\frac{1}{2}\$	CCTLPLB
Nash S	Days.
Crotssant (Keller), No. 1, \$15.00; No. 2, \$24.00 dts 333, \$10 \$ Boynton's No. 1, \$12 \$\pi\$ dos; No. 2, \$10	ı
Scales	
Adjustable Box Scraper (S. R. & L. Co.) #5.50, dis 20&10 \$ Box, 1 Handle.	a aı
Porter's Pat Window and Door Frame dis 3314 \$	86
Screw Drivers	Si
Sets Interchangeable \$\psi\$ dos \$18.00\$, dis 25 \$ Champion \$\psi\$ 25 \$ Clark & Patent .dis 20 \$ Crawford & Adjustable .dis 20 \$ Knapp & Cowles' Screw-Driver Bitts .\$\psi\$ dos 90 \$ Screws \$\psi\$ dos 90 \$ Ain. Screw Co.'s list, Jan. 1, 1885 :	I
Fina theat from Flat Head Brass. Light Head Brass. Japanned, Brain Screws. Japanned, Brain Screws. Eliat Head Iron. Eliat Head Iron. Eliat Head Iron.	
Round Head Brass. Dayton Serew Co.'s list, January 15, 1885 : 9 Flat Head Iron. 9 Flat Head Iron. 9 Flat Head Brass. Round Head Brass. Brass and Silver Capped Screws. dis 40 ct. Lag or Coach. dis 75 kip or 80 ct.	
Doach, Patent Gimies Foint, dis 75 @ 75 % 5 8 Bed	
Knanp & Cowles' Screw Driver Bitts	
Tusing Stocks and Snears \$\frac{1}{2}\$ arnard's Lamp Trimmers \$\frac{1}{2}\$ dos \$3.75 \\ \text{Finners'} \text{dis } 20\text{\text{\text{2}}} 2 \text{\text{\text{\text{\text{\text{4}}}}} \\ \text{ey mour's, List, Dec., 1881} \text{2}}}2}}}} 2 \text{2}}}}} 2 \text{\tex{\tex	ı
Viss, J., & Sons' Tailors' Shears	_
Viss. J. & Sons' Tailors' Shears	
Shovels and Spades. mes' Shovels. dis 20 % mes' Shovels. Spades. &c., Ames' brands. dis 20 % ome special brands of \$\frac{4}{2}\text{mes' goods}. dis 20 % ome special brands of \$\frac{4}{2}\text{mes' goods}. dis 20 % ome special brands of \$\frac{4}{2}\text{mes' goods}. dis 20 % ome special brands of \$\frac{4}{2}\text{mes' goods}. dis 20 % ome special \$\frac{4}{2}\text{mes' goods}. dis 20 % dis 20 % dis 20 % ome special \$\frac{4}{2}\text{mes' goods}. dis 20 % ome special \$\frac{4}{2}m	Y
ayne Pettebone & Son, list Jan. 2, 1882 dis 50&5 g T. Pettebone, Pat. Shovels, new list dis 50 g T. Pettebone, Pat. Scoops, new list dis 50 g emington's (Lowman's Patent), dis 30 g 90&10 g owland's Hack Iros dis 50&10 g owland's Steel dis 60&10 g Shovels and Tongs. on and Brass Head, B. & E. list dis 60&10&2 g on and Brass Head, B. & & W. dis 60&10&2 g on and Brass Head, B. & W. dis 60&10&2 g on and Brass Head, B. & & W. dis 60&10&2 g on and Brass Head, B. & & W. dis 60&10&2 g on and Brass Head, B. & & W. dis 60&10&2 g on and Brass Head, B. & & W. dis 60&10&2 g on and Brass Head, B. & & W. dis 60&10&2 g on and Brass Head, B. & W. dis 60&10&2 g on and Brass Head, B. & & W. dis 60&10&2 g on and Brass Head, B. & & W. dis 60&10&2 g on and Brass Head, B. & & W. dis 60&10&2 g on and Brass Head, B. & W. dis 60&10&2 g on and Brass Head, B. & W. dis 60&10&2 g on and Brass Head, B. & W. dis 60&10&2 g on and Brass Head, B. & W. dis 60&10&2 g on and Brass Head, B. & W. dis 60&10&2 g on and Brass Head, B. & W. dis 60&10&2 g on and Brass Head, B. & W. dis 60&10&2 g on and Brass Head, B. & W. dis 60&10&2 g on and Brass Head, B. & W. dis 60&10&2 g on and Brass Head, B. & W. dis 60&10&2 g on and Brass Head, B	3 6
on and brass. 17. 8. 9	H.
States	Į.

	_
Spoons.	1
Bycons. Basting, Central Stamping Co.'s list dis 333-36 Solid Table and Tea, Central Stamping Company list. 18t. dis 335-36 Buffalo, S. S. & Co. dis 50-81 Britannia dis 60-81 Britannia dis 60-81 Britannia dis 60-81 Britannia dis 60-81 Britannia dis 50-81 Britannia	0 -
Solid Table and Tea. Central Stamping Company	2 %
listdis 3314&	28
Buffalo, S. S. & Codis 50&1	0 %
Meriden Brit. Co., Rogers die 50&1	5.0
Wm. Rogers Mfg. Co dis 50&5&	5%
Holmes, Booth & Haydensdis 50&1	0 %
German Silver	08
Cast Steel, Silver Plated	0 \$
H. & E. Silver Co. Steel Silver-Plated Teas.	
Tin (Cowles Hdw. Co).	0 %
Tin (Cowles Hdw. Co.), case lotsdis 2	08
Squares.	
Steel and Iron	(it
Nickel Plated 60&10&5	%
Disston's Try Square and T Bevole dis 45-21	9.0
Winterbottom's Try and Miter	0 %
Stocks and Diesdis 5&1	0 %
Lightning "Screw Plate dis 10 @ 10&1	0 4
Stone	
Sand Stone	0 %
Washita Stone, Extra	180
Washita Stone No. 1, F D. 13	160
Washita Stone	Uga
Arkansas Stone No. 1 4 to 8 to 2 to 4 to 5 to 1	Mic
Arkansas Stone, No. 1, 6 to 9 in # 100, dis 1	2.0
Turkey Oil Stone (Chase)4 to 8 in., W D. 60¢, dis 1	0 %
Turkey Stips (Chase)	15
Lake Superior Sline (Chase)	3 6
Grindstones, Family, Loring's dis l	0 9
Stove Boards.	
Buffalo Zinc, S. S. & Co dis 5	20
Joseph Dixon's₽ gro \$6.00, dis 10	2.0
Gem	186
"Mirror" F gro \$6.00, dia 2	38
Lustro F gro \$4.75 r	iet
Ruby	let
Dixon's Plumbago	iet
Boynton's Noon Day, F gro, No. 1, large, \$5,50; No.	2
Stave Polish Joseph Dixon's P gro \$6.00, dis 1	
Cks, Br ds, &c.	- (
American Iron Carnet Tacks, all kinds, dis attacks	1
Steel Carpet Tacks, all kinds dis 55	
Swedes Iron Carpet Tacks, all kindsdls 50 %	
Swedes Iron Unholstorers' Tooks	
Tinned Swedes Iron Tacks	
Tinned Swedes Iron Upholsterers' Tacksdis 50 %	
Copper Tacks	
Copper Finishing and Trunk Nais dis 50 6	100
Cigar Box Nailsdis 40 %	25
Hungarian Natis and Minaral Tagles	15
Gimp and Lace Tacks	0
Tinned Gimp and Lace Tacksdis 30 %	5 1
Trunk and Clout Nailsdis 30 %	3
Basket Nails	
Chair Nailsdis 30 g	1
Tipped Capped Trunk Nath	1
Looking-Glass Tacks dis 30 %	
Picture-Frame Pointsdis 20 %	
Leathered Carpet Tacks	
Note, Tacks of outside makers 5 o 10 5 less than	11
American Iron Cut Tacks	1
above prices Double-pointed Tacks	8 1
Wire Carpet Nails dis 50 Wire Carpet Nails, R. & E. Mfg. Co. dis 40x10 Steel Wire Brads, R. & E. Mfg. Co. dis 40x10	8 1

2 •	
Tap Borers	Parallel, Simpson's Adjustable Saw Filers, Bonney's, Nos. 2 & 3. \$ Saw Filers, Stearn's Saw Filers, Golphins' Saw Filers, Reading Saw Filers, Wentworth Cowell Hand V'see Richardson's Vise and Anvil
Ives' Tap Borers Nos. 1 2 4 die 15210 c	Saw Filers, Bonney's, Nos. 2 & 3
Ives' Tap Borers	Saw Filers Hopkins'
Clark's dis 20&10 \$	Saw Filers, Reading
Tance Monanting	Cowell Hand Viere
Tapes, Mensuring. American	Richardson's Vise and Anvil
Spring	Washer Cutters. Smith's Patent. & doz \$11 Johnson's & doz 90 Penny's & Woo Pol. \$15 Appleton's & dos Bonney's.
Chesterman's Regular list dis 25 %	Smith's Patent F doz \$1:
Thermometers. Tin Case	Penny's W dow Pol \$14.
Tinners' Shonra, &c	Appleton's dos roll all
Tinners' Shears, &c. Shears and Snips (P. S. & W.)	Bonney's.
	A A MEMBER & M. COLLEGE OF STREET AND STREET
Tinware.	Well Wheels-8 in., \$1.85; 10 in
Stamped, Central Stamping Co.'s listdis 33\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Wire.
Pieced, S. S. & Co	Market Bright and Appended Nov.
Japanned, S. S. & Co	Wire. Brass and Copper, new list, Jan. 18 Market, Bright and Annealed, Nos. of Market, Copperd. Market, Galvanized Market, Galvanized Market, Galvanized Market, Galvanized Market, Galvanized Market, Galvanized, Nos. 19 Stone, Bright and Annealed Nos. 27 Stone, Galvanized, Nos. 19 to 30 Stone, Bright and Annealed Nos. 27 Stone, Galvanized, Nos. 19 to 50
stamped, s. s. & Co., new list dls 33142 %	Market, Galvanized
Transon Lifters. dis 50 g Wollensak's Patent. dis 50 g Reiher, Imp. Lifter, list, Oct., 1883. dis 50&10&2 € Excelsior. dis 50&10&2 €	Stone Bright and Appendix
Reiher, Imp. Lifter, list, Oct., 1883. dis 35&10 s.	Stone, Bright and Annealed Nos. 27
Excelsiordis 50&10&2 \$	Stone, Galvanized, Nos. 19 to 30
Tobacco Cutters.	Stone, Tinned, Tinned Hst
Enterprise Mfg. Co. (Champion)dis 20&10 %	Cast Steel Wire.
All Iron	Annealed Fence, Nos. 8 & 9
Tob-cco Cutters	Stone, Bright and Annealed Nos. 27 Stone, Galvanized, Nos. 19 to 30. Stone, Tinned, Tinned Hst. Tinned Broom Wire Cast Steel Wire. Annealed Feme, Nos. 8 & 9. Annealed Grape, Nos. 10 to 14 Fence Staples, Fence Staples, Galvanized, Stubs Steel Wire. Barb Fence.
Wilson'sdis 55 %	Fence Staples, Galvanized.
Acme	Stubs Steel Wire
Trops.	Barb Fence. Barb Fence. With On Specify Guards.
Game, Newhouse dis 35 %	Wire on Spools. Steel Music Wire, Nos. 7 to 30
Game, Onelda Patterndis 60% 10% 10 %	Steel Music Wire, Nos. 7 to 30
Mouse, Wood, Choker 20 dow holes 15e	Wire Clotney I Inca Nee I Inca
Mouse, Round Wire ≥ doz \$1.50, dis 10 ≤	Picture Wire. Wire Clothes Lines. See Lines. Wire Cloth, green, drab and black.
Mouse Cage, Wire & doz \$2.50, dis 10 %	82.0
Mouse, "Bonanza" gross \$10 not	Wrenches American Adjusta
Mouse, Delusion rgross \$18.00, dis 20 %	Baxter's Adjustable "S"
Rat, " Decov "	Coes' Genuine cash in
Trops Game, Newhouse Game, Onelda Pattern dis 40x10 x	Wrenches. American Adjusta Baxter's Adjustable "S" Baxter's Diagonal. Coes' Buchanles' cash in Coes' Battern, Malleable. Coes' Battern, Malleable. Girard Standard rought. dis Girard Standard.
Reed's Brick and Plasteringdis 20210 \$	Coes' Pattern, Wronght
Disston's Brick and Plastering	Girard Standard
Clement & Maynord's	Girard Standard. Girard Agricultural. Bemis & Call's Patent Combination Bemis & Call's Merrick's Pattern. Bemis & Call's Brigg's Pattern. Bemis & Call's Brigg's Pattern. Bemis & Call's Cylinder or Gas Pipe Bemis & Call's No. 3 Pipe. Alken's Pocket (Bright). The Favorite Pocket (Bright). The Favorite Pocket (Bright). "Always Ready". "Always Ready". Jaligator. Donohue's Engineer. Wringers.
Rose's Brick. dis 15 g	Bemis & Call's Merrick's Pattorn
Brade's Brickdis 25 %	Bemis & Call's Brigg's Pattern
Garden dis 20 %	Beinis & Call's Cylinder or Gas Pipe
Trier.	Aiken's Pocket (Bright)
Tie State Color Color	The Favorite Pocket (Bright)
Penfield Block Co.'s list 1982	Reardman's
Twine, BC, b.	"Always Ready "
No. 12, Flax Twine, 4 and 5 b Balls 18¢ 20¢	Alligator
No. 36. " " 14 and 16 " 176 186	Wringers.
No. 264, Mattrass, 14 and 16	Novetty, for Common Tube No. 1
Chalk Line, Cotton, & B Halls	Novelty, for Common Tubs, No. 3, 1
2-Ply Hemp, 14 and 16 % Balls (Spring Twine)	Excelsior, for Stationary Tubs, No. 1
3-Ply " 1 h Balfs	Excelsion with Folding Report No. 1
Cotton Weapping 5 Balls to 8	Excelsior, with Folding Bench, No. 1
2, 3, 4, and 5 Ply Jute, 16 % Balls. 116	Universal, No. 236
Wool	Universal, No. 14
Cotton Mops-6, 9, 12 and 15 B to doz	Universal, No. 15.
Viscs. dis 50 ec 50&10 v	Universal, No. 1
Parallel, Fisher & Norris Double Screwdis 15x 10 c	Universal, for Set Tubs, A 216
Parallet Parker's dis 25 1	Universal, for Set Tubs, C L.
Parallet, Wilson's	Poorloss No. 21
Parallel, Howard'sdis 40 %	Peerless No. 336
Parallet Morritis	No. 99 Improved 236
Vass	Wringers. Novetty, for Common Tubs, No. 5, 1 Novetty, for Common Tubs, No. 3, 1 Excelsior, for Stationary Tubs, No. 1 Excelsior, for Stationary Tubs, No. 1 Excelsior, for Stationary Tubs, No. 1 Excelsior, with Foldling Bench, No. 2 Excelsior, with Foldling Bench, No. 1 Universal, No. 25, 1 Universal, No. 15, 1 Universal, for Set Tubs, E 15, 1
Parallel, Backus and Uniondis 40 %	Leader
Paratlel, Prentiss	Leader
dia 20@25 %	Wrought Staples, Hooks, &

dis 20&10 \$ 2, 4—dis 15&10 \$ 3, 14—dis 25&10 \$ dis 20&10 \$	Saw Filers, Romey's, Nos. 2 & S. # doz \$15.00, dis 16 & Saw Filers, Starn's .	
2. 4-dis 15.810 %	Saw Filers, Bonney's, Nos. 2 & S., # 402 \$15.00, dis 10 %	
3. 14-dis 25&10 %	Saw Filers Gentline 2 dos 817 50 dis 10 7	
dis 20&10 %	Saw Filers Reading die 1021 4	
dls 3314835 %	Saw Filers, Wentworth die 20010	
	Cowell Hand Vises dis 20 c	
dla 95 6 10 g	Richardson's Vise and Apvil dis 27 %	
dis 25&10 % dis 40 % gular list dis 25 %	NAY n. how Coase-	
onlar list die 25 g	Washer Cutters.	
person that the say it	Johnson's	
11 111 1111 1111	Penny's 3 don Dol \$14. Tanki 819 die 59 s	
.dis 80 is 80%5 %	Appleton's dos Poi. \$11; Jap'd, \$10. dis 55 X	
	Bonney's	
dis 20&2 €	187 - 1	
	Washers.—See Nuts and Washers. Washers.—See Nuts and Washers. dis 22 % Washers.—\$\psi doz \\$12.00, dis 20\(\frac{1}{2}\) 0\(\frac{1}{2}\) 0	
	Well Wheels-8 in., \$1.85; 10 in., \$2.15; 12 in., \$2.90	
dis 33\3&2 %	Wire	
t dis 3315&2 %	Brass and Conner now list Jon 19 191 He manager a	
dis 60 % dis 25&10 % dis 3314&2 %	Market, Bright and Appended Nov. 04-18 discount	
dls 25&10 ¥	Market, Coppered.	
dls 331642 %	Market, Galvanized	
	Market, Tinned, Tinned list die come s	
dle 50 g	Stone, Bright and Annealed Now 19 to 26 die 20 %	
dis 35&10 % dis 35&10 % dis 50&10&2 %	Stone, Bright and Annealed Nos 27 to 24 die 75 85 g	
dis 5081082 €	Stone, Galvanized, Nos. 19 to 30	
	Stone, Tinned, Tinned list. dis cases a	
	Tinned Broom Wire.	
dis 20%10 %	Cast Steel Wire.	
10.00, dis 30&10 %	Annealed Fence, Nos. 8 & 9 dis 20 & 5 #	
№ doz \$4.50 net	Annealed Grape, Nos. 10 to 14 dis 70.85 &	
dis 20&10 % 10.00, dis 30&10 % ⊮ doz \$4.50 net 18.00 dis 50æ55 %	Fence Staples 10 th 314 co 934ce	
dis 50&10&10 %	Fence Staples, Galvanized.	
t, dis 50% 10% 10 %	Stubs Steel Wire 16 00 to P dle 20 #	
nz \$20.00, dis 40 %	Barb Fence See Trade Report	
	Barb Wire Safety Guards ¥ 1000 \$9.00, dfs 25 €	
dis 60 & 10 & 10 €	Wire on Spools dis 65 c	
dis 60& 10& 10 %	Steel Music Wire, Nos. 7 to 30	
dis 40&10 %	Picture Wiredis 60&10 \$	
₹ doz holes, 15¢	Wire Clotnes Lines, See Lines.	
oz \$1.50, dís 10 %	Wire Cloth, green, drab and black, \$\mathbb{E}\$ 100 sq. ft	
dis 40&10 % P doz holes, 15¢ oz \$1.50, dis 10 % oz \$2.50, dis 10 % oz \$2.50, dis 15 %	22.00 net a dis 5 m 10s	
oz \$2.50, dis 15 %	Wrenches American Adjustable die 45 g	
. & gross \$10 net	Baxter's Adjustable "8" die 221- e	
. F gross \$10 net is \$18.00, dis 20 %	Baxter's Diagonal Als 25 5 10 7	
z \$10.00, dis 10 %	Coes' Genuine cash in 10 days die goes s	
	Coes' "Mechanics'" dis cos 1083 s	
dls 20&10 \$	Coes' Pattern, Malleabledis 80.62 80.85 \$	
dis 15 %	Coes' Pattern, Wrought dis 75&10 @ 25&10&5 \$	
dis 20&10 %	Girard Standarddis 70 x	
	Girard Agriculturaldis 75&10 s	
dis 20 %	Bemis & Call's Patent Combination dis 30& 5	
dis 15 %	Bemis & Call's Merrick's Patterndis 35 %	
	Bemis & Call's Brigg's Patterndis 25 €	
dis 20 %	Bemis & Cair's Cylinder or Gas Pipedis 40&5 4	
	Bemis & Cair's No. 3 Pipedis 35&5 %	
24-122-1	Alken's Pocket (Bright)	
dls 25 %	Webster's Detrocket (Bright), F doz \$4.00, dis 40 %	
-0.1 - 0.45 -4	Popularion dis 25 %	
DC 1	" Always Boady "	
180 000	Alligator dis 25&5 %	
17e 18e	Donohue's Engineerdis 40&10 %	
BC. b	Well Wheels—Sin., \$1.85; 10 in., \$2.15; 12 in., \$2.30 Wire. Brass and Copper, new list, Jan. 18, '84 disc 35a; 30.85; 2 Market, Bright and Annealed, Nos. 0 to 18, disc 35a; 55 darket, Coppered. Market, Goppered. disc 65a; 55 darket, Coppered. disc 65a; 55 darket, Coppered. disc 65a; 56 darket, Coppered. disc 65a; 56 darket, Coppered. disc 60a; 57 disc 55 darket, Coppered. disc 60a; 58 darket, Galvanized. Market, Galv	
	Novetty for Commence Technique	
2×e	Novelty, for Common Tubs, No. 5, 10 Inch\$30,00	
Twine)	Excelsion for Stationers Tol. No. 3, 11-inch 34.50	
Twine) 14¢	Excelsion, for Stationary Tubs, No. E, 10-inch 39,00	
140	Excelsion, for Stationary Fulbs, No. F, 11-Inch 43.50	
136	Excelsion with Folding Bench, No. A, 10 inch 48,00	
	Universal No. 214	
	Universal No. 9	
ele un estae	Universal No. 11c	
	Universal No. 114	
	Universal, No. 1	
dis 50 o. 50x 10 s	Universal, for Set Tubs. A 214 57.90 1 %	
dts 15x 10 s	Universal, for Set Tubs. E 14s 33,00 [2]	
rdis 15&10 ≤ dis 25 τ dis 20 @ 25ς dis 55 ⊊	Universal, for Set Tubs, C 1	
dls 20 @ 25%	Adams & Co. No. 8	
dls 55 %	Peerless No. 216	
	Peerless No. 31g	
dis 40 3 dis 15@20 5 dis 60&10 5	No. 99 Improved 236 30.00	
dis 150c20 %	"Metropolitan," No. 2	
dis 60&10 %	"Metropolitan," No. 216 So No.	
dis 40 %	Leader 28 00	
dis 15&10 %	Advance, 20 00	
dia 20@25 %	Alligator	
	THE PARTY OF THE P	

MPROVED ROUND EXTENSION LIP AUGER BIT. S. H. & E. Y. MOORE, SOLID CAST STEEL,

NONE GENUINE UNLESS



STAMPED C. F. JENNINGS & CO.

We are now ready to supply the Trade with our new ${\bf No.~5}$ Auger Bit. This Bit has round extension lip with spurs, and is designed for fine work. It has a draw cut, nd every bit bearing our name is fully warranted. Ask your merchant for "C E. Jennings & Co.'s Round Extension Lip No. 5 Auger Bit." Price, per full et of 13 Bits, 4-16th to 16-16th inch, \$5.

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MOORE'S FREIGHT CAR DOOR HANGERS BAGGAGE CAR DOOR HANGERS. RAILROAD HANGERS, PARLOR DOOR HANGERS.

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Adjustable Stock and Dies for Pipe, Botts and Bruss Tubing. Tapped to Standard Gauges. Adjustable to all va

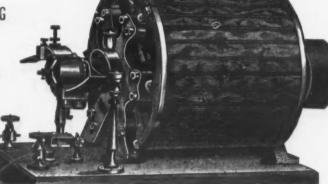
F. ARMSTRONG, Bridgeport, Conn.

and Polishing **Nickel-Plating** Materials.

THE AMERICAN NAMO ELECTRO-PLATING MACHINE.

est Plating Machine in the Market.

EADQUARTERS FOR EVERYTHING THE PLATING AND POLISHING LINE.



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> Nickel Anodes, Nickel Salts, Patent Muslin Buffs, Polishing Lathes, Polishing Felt, Polishing Rouges, Pol'ng Compositions. Walrus Leather, Wood Emery Wheels Platers' Brushes, &c., &c., &c.

Zucker & Levett Chemical Co., 538 to 564 W. 16th St. 36 to 40 11th Ave. NEW YORK U.S.A.

WHOLESALE METAL PRICES, April 15, 1885.

METALS.	
IRONDury: Bars, 8-10¢ to 11-10¢ % h;	pro-
**HON.—DUTY: Bars, 8-10¢ to 11-10¢ % %; vided that no Bar Iron shall pay a less rate of than 85%. Sheet, 11-0¢ to 15-10¢ % %. Band, I and Scroll, 1¢ to 14-10¢ % %. Railroad Bars wing more than 25 % % yard, 7-10¢ of 1¢ % %.	Hoop eigh-
Standard American Pig Iron Foundry No. 1 X # ton \$18.00 @ Foundry No. 2 X # ton 17.00 @ Gray Forge # ton 16.00 @	
mr. I Nandah Illa Bana	
Carnbroe % ton 19,00 @	21.50 22.00 19.50 21.50 29.00
Summeriee. 1 ton 20,50 @ Summeriee. 2 ton 19,00 @ Eginton 2 ton 18,00 @ Clyde 2 ton 19,00 @ Clyde 2 ton 19,00 @ Clyde 3 ton 19	21.00 19.25 18.50
Ratis. Steel, at Eastern mills	
Wrought, \$\varphi\$ ton, from yard18.50 @ Bar Iron from Store.	19.00
Common Iron: \$4 to 1 in. ro und and square}	1.9¢
Refined Iron: \$4 to 2 in. round and square \$\frac{1}{2}\$ to 1 in. \$\frac{1}{2}\$ to 1 in. \$\frac{1}{2}\$ to 6 in. x \frac{1}{2}\$ to 1 in. \$\frac{1}{2}\$ to 6 in. x \frac{1}{2}\$ to 1 in. \$\frac{1}{2}\$ to 6 in. x \frac{1}{2}\$ to 1 in. \$\frac{1}{2}\$ to 8 in. x \frac{1}{2}\$ and 5 \cdot 16. \$\frac{1}{2}\$ to 2 in. \$\frac{1}{2}\$ to 2 in. \$\frac{1}{2}\$ to 2 in. \$\frac{1}{2}\$ to 1 in. \$\frac{1}{2}\$ to 1 in. \$\frac{1}{2}\$ to 2 in. \$\frac{1}{2}\$ to 2 in. \$\frac{1}{2}\$ to 1 in. \$\frac{1}{2}\$ to 1 in. \$\frac{1}{2}\$ to 1 in. \$\frac{1}{2}\$ to 2 in. \$\frac{1}{2}\$ to 1	2.2¢ .40¢ .80¢ .50¢
Burden's "H. B. & S." Iron, base price, b ib Norway Nail Rods	2.54
Sheet Iron from Store.	3
Nos. 10 to 16.	
Galvanized, 10 to 20	
American Cold Rolled B. B. W D 5 & @ 7 & Iron Wire. See Wire.	al-
American Cold Rolled B. B *\psi b 5 \ \phi \ \eta \ \gamma \ \ \text{Fon Wire.} \end{align*} From Wire. See Wire. STEEL.—Dury. Ingots, Bars, Sheets, &c., v ued at 4\phi \ \phi \ \text{D or less, } 4\phi \ \text{ad. val.}; valued ab 4\phi \ \text{ad not above } 7\phi \ \phi. \ \text{D. } \ \text{Etras.} \ \text{Seel Bars, Ro } \ \text{Ac., void hammered or polished, in any way addition to ordinary hot rolling, 1\phi \ \phi \ \text{B in addition to above; Steel Circular Saw Plates, 1\phi \ \phi \ \text{in addition to the above.} \end{align*}	ove ove
10¢ % D, 8¼¢ % D. Extras.—Steel Bars, Ro &c., cold hammered or polished, in any way addition to ordinary hot rolling, 1¼¢ % D in ad	in di-
For American Steel, see Pittsburgh quotations Ruglish Steel. Best Cast. Box 15	40
Euglish Steel. Best Cast.	90 90 90
Swaged, Cast	9¢
2d quality 10 8 b 8	2000
2d quality 9 2 14) Sd quality 9 2 12)	F OS
TIN.—DUTY Plates, Sheets, Tagger and Term 1¢ 單 敢; Bars, Block and Pizs free. Banca	ie i
16 16 16 16 16 16 16 16	S S NN
I C 10x14 225 sheets box \$5.00 @ 7. I C 12x12 225 sheets 5.00 @ 7.	0.1
I C 20x2; 1 " 10.00 63 14. I X 10x14 225 sheets " 6.25 6 8. I X 12x12 225 sheets " 6.25 6 8. I X 14x30, 112 " 6.25 6 8.	
I C 10x14 225 sheets.	00 16
Best, Ordinar	
I C 10x14 {	10
C MURAIN, 210 BRECKERS	
Prime Char. 20, quality Coke. C 14x20 M. F. \$6.75 @ 7.0 \	6 11
Terne Plates. Prime Char. 2d. quality Coke. C 14x20 M. F. \$9.75 @ 7.0\. I C 14x20 Old Process \$6.50 I C 20x28 I C 14x20. \$4.62\(\frac{1}{2}\) \(\frac{1}{2}\)	18 15 26 26
I X 20x2812.50 @ 11 (a) I C 20x20013.50 @ 16.25 Tin Boller Plates,	96 80 80
IXX 14x26, 2 sheets for No. 7, 112 sheets. @ \$12.0 IXX 14x28, 2 " No. 8, " @ 18.0 IXX 14x31, 2 " No. 9, " @ 15.0	84 86
Copper, 36 % D. Manufactured (including a)	1
articles of which Copper is a component of chie value). 35 \$ ad valorem. Ingot, I.ake	6 11 18 18
Ingot Anchor. "10% @ 10% @ 10% 10% @ 10% 10% 1	26 26 26
Braziers' Copper, ordinary sizes, under 16 oz. and over 12 oz. 9 sq. ft	90
under 16 ok. and over 12 oz. ₩ 8q. ft	96 :
Circles less than 84 in. in diam	ing
Locomotive Fire-Box Sacets	per
Sheathing Copper, over 12 02. 24 0.16	
Plating extra	Wh
Tinning. 14x48, by the case	Uni City No.
6'Neill's Patent Planished CopperNet,	Nev
14x48 4 and 16 oz. and heavier. 30¢ By the case. \$1 to 29¢ 12 oz. and lighter33¢ " 32¢" 32¢	Seco
### 32¢ **Boiler Sizes. 7 in., 14x52. 8 in., 14x56. 9 in., 14x60. 4 and 16 02 and beavier 32¢ By the case. \$\mathbb{B}\$ 51¢ (And all sizes not over 20 in. wide.) 24x48 and 30x60.	Cole Man Gun
24x48 and 30x60. 4 and 16 oz. and heavier	Ken Buri Tar
Copper Wire.—(See Wire.) Sheathing Metal.	Hen Hard Soft Whi
ellow Sheathing Metal, # D	Leda
Brown & Sharpe's Gauge the Standard for Metal; Old English Gauge the Standard for Wire.	Book Old Pure B gr
Brass Manufacturers' Price List, January 17, 1884. dis. 20 @ 30 c	Com Bind Stra
10 : Pipe and Sheet, 3¢ 10 10. Marican	Du

Block Tin Pipe	Black Paint, in oil Regs, 8¢; assorted came Blue, Prussian, fair to best Regs, 8¢; assorted came Blue, Prussian, fair to best Regs, 8¢; assorted came Regs, 8¢; assorted Regs,
Block Tin Pipe	Blue, Prussian, fair to best
ANTI HONY.	# Ultramarine 18 @ 18
per 100 IDS.	0 Green Chrome
American, cash	Firon Paint, Bright Red.
Bergenport. 9. 2 INC—Duty : Pig or Block, \$1.50 ♥ 100 lbs	Ground in oil, Bright Red.
Zine Tubing—Dis. 25 %.	Mineral Paints. 26
Plain	Mineral Paints Purple
BABBITT METAL.	"Indian Dry
X 100 X X 15q J. B 100	Burnt, powdered 10 @ 16 @ 16 @ 16 @ 11 0 15 6 8
WittE. Market Wire.—Put up in 68 fb bundles.	Umber, Burnt, powdered
Nos. 00 to 9, 10, 11, 19, 18, 14, 15, 16, 17, 18.	Vermillon, Chinese
10 11 11½ 12½ 14 15 16 Bright Market Wire dis 70&5 5 Charcoal dis 50 5 Annealed Market Wire. dis 70 8 Fence Wire, Nos. 7 to 12 dis 70 8 Grape Wire, Nos. 10 to 14	American, Common. White Lead, American, pure dry in oil.
"Bale Wire, Nos. 7 to 12dis 70 % Annealed Market Wire	White Paris, English Prime
"Grape Wire. Nos. 10 to 14 1 Coppered Market Wire	" Vermont in casks, I Yellow Chrome
Grape Wre. Nos. 7 to 12 dis. 65&5 \$ Galvanized Market Wire dis. 65 \$ Galvanized Market Wire dis. 60&5 \$ Fence Wire dis. 60&5 \$ Gold State dis. 60&5 \$ Gold State	Zinc White, Amercan No. 1, dry No. 1, in oil French (Paris Dry)
	Olls.
Nos 16 17 18 19 30 21 22 23 24 23 26 Cents 14 15 16 19 20 21 22 23 24 25 26 Nos 27 28 29 30 31 32 33 34 35 36 Cents 28 29 30 32 33 35 37 40 45 55 Nos. 16 to 18 dis. 70 6 70 & 5 5 19 to 29 75 6 75 & 5 6 Galvanized Stone Wire 75 6 75 & 5 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Bleached Whale, # gal
Nos. 16 to 18. dis. 70 @ 70 & 5 s 19 to 26. 70 & 5 s	Drilling 4 Empire Cylinder Oil 6 Engine 5
Galvanized Stone Wire. 55 2 5	Empire Cylinder Oil
Cast Steel, Steel Wire list	Linseed, Raw. in casks and bbis 52 6a 5 6 6 8 8 8 10 10 10 10 10 10 10 10 10 10 10 10 10
Old English Gauge the Standard.—Dis 40 @ 30. Gilding	Miners' Oil
Common Bronse High Low and Brass Brass Copper.	Tallow
All Nos. to No. 16, inclusive	Asphaltum, Cuban
No. 17 and 18	Bensine. Findag Reined # gal. 9 & 1 Chalk
" 22 .26 .80 .84 " 28 .28 .82 .86 " 94 .39 .84 .88	Crucibles No. 14 and upward, per number
" 25	t less than 300 m 4 Frostings. 24 9 3
27	Sheet 26 Glaziers' Points, Zinc, # box 35.6 Gum. Const. 33.6
" 80	Damar gr Shellac, English M
" 82	Litharge
" 35	Pumice Stone, selected Lumps
***37	Pitch
Spring Wire, 2 cents per pound advance. Whit- ned Wire, 3 cents per pound advance. Flat, Square	"Gun Powder Glazing, & B
nd Half-Round Wire, 4 cents advance on Round Vire. Fancy Wire, not less than 10 cents advance on cound Wire. Spooling on one-pound Spools, 12	In bulk. Rosin—Common and Good—Strained
ents per pound extra. Spooling on ten-pound pools or more 2 cents per pound extra.	G & H \$1.50 Ge \$1.7 I & K \$2.35 Ge \$2.7 M & N \$3.70 Ge \$4.5
IISCELLANEOUS TINNERS' STOCK.	Stove Polish, Dixon's
ISCRLLANGOUS TINNERS' STOCK. Solder. 12 @ 121/47 2	Store Polish, Dixon's Store Polish, Dixon's From \$6.
ISCRLLANEOUS TINNERS' STOCK. Solder. 12 @ 12/47 xtra. 10/4 @ 11 ¢ 0.1 Refined 9/4 @ 10 ¢ 0.2 &	Sundries
Hivets.	Solution
Hivets.	" No. I Colored
## vets. on and Tinned, new list, Dec. 10, 1881	No. I Colored 654 No. 2 Colored 654 Washed Machine 654 Whiting, Spanish 86
## Wiping ## Wip	No. 1 Colored
## Wind ## Wist, Dec. 10, 1881 dis. 40 s bulk, new list, Dec. 10, 1881 dis. 40 s bulk, new list, Dec. 10, 1881 dis. 40 s opper Rivets and Burrs dis. 50 106 60 s Nos. 7 8 9 10 11 12 13 14 1 9 b 40 s opper Set of the Set of 60 set of 50 s opper Set of 50 s 58 60 s opper Set of 50 s op	No. 1 Colored
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## Nos. 1 St.	No. 1 Colored
## Vets. on and Tinned, new list, Dec. 10, 1881	No. 1 Colored No. 2 Colored No. 2 Colored Washed Machine Whiting, Spanish INTERCHANGEABLE LOCK-CORNER SHELF BOXES. Screw Cases, &c., FOR THE HARDWARE TRADE S. H. GREIEN, 19 Murray St., New York. STABLISHED 1855. STEEL NAILS NOTELL NAILS OFFICE AND WORKS:
## Vets. on and Tinned, new list, Dec. 10, 1881	No. 1 Colored No. 2
## Vets. on and Tinned, new list, Dec. 10, 1881	No. 1 Colored No. 2 Colored Washed Machine Interchangeable Lock-corner Shelf Boxes. Screw Cases, &c., FOR THE HARDWARE TRADE S. H. GREEN, 19 Murray St., New York. STABLISHED 1855. STEEL NAILS OFFICE AND WORKS: STEUBENVILLE, OHIO.
## Note 18 18 18 18 18 18 18 1	No. 1 Colored No. 2 Colored No. 2 Colored Washed Machine INTERCHANGEABLE LOCK-CORNER SHELF BOXES. Screw Cases, &c., FOR THE HARDWARE TRADE S. H. GREIEN, 19 Murray St., New York. STABLISHED 1855. STEEL NAILS OFFICE AND WORKS: STEUBENVILLE, OHIO. STEEL FDGE DUST PAN 6:
## Note 18 18 18 18 18 18 18 1	No. 1 Colored No. 2 Colored Washed Machine INTERCHANGEABLE LOCK-CORNER SHELF BOXES. Serew Cases, &c., FOR THE HARDWARE TRADE S. H. GREEN, 19 Murray St., New York. STABLISHED 1855. STEEL NAILS OFFICE AND WORKS: STEUBENVILLE, OHIO. STEEL EDGE DUST PAN 6. 6 EXCHANGE PLACE.
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## Wyong ##	No. 1 Colored No. 2 Colored Washed Machine INTERCHANGEABLE LOCK-CORNER SHELF BOXES. Serew Cases, &c., FOR THE HARDWARE TRADE S. H. GREEN, 19 Murray St., New York. STABLISHED 1855. STEEL NAILS OFFICE AND WORKS: STEUBENVILLE, OHIO. TEEL DGE DUST PAN 6 6 EXCHANGE PLACE, BOSTON. ALWAYS HAS A

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ė	Hack Ivory Drop, fair. 12 @ 16#	
i i	Black Paint, in oilkegs, 8¢; assorted cans, 11¢	
4 14	Blue, Prussian, fair to best	11
	" Ultramarine	1
	Brown, Spanish	ı
)	Green Chrome	1
	" Paris	
	Iron Paint, Bright Red 24¢	1
	Purple	
	# # Brown # 546	
	Mineral Paints. 2 @ 4c	_
	Orange Mineral	-
	Venetian (Eng.) dry\$1.65 @ \$1.70	
Ì	" Indian Dry	
1	Sienna, American Raw, powdered	
İ	" in oil	
ł	Umber, Burnt, powdered	
ł	Raw, powdered	
l	Vermillon, Chinese	
l	Brown St.	
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l	Yellow Ochre, French	
l	Vellow Chrome	
l	in oil	
	" No. 1, in oil	_
	American, Common 15e	
	Olls.	
	Bleached Whale, # gal\$1.05	of
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1	Empire Cylinder Oil	_
1	Fish Oil, Pressed	
1	No. 1 Extra	
1	" Boiled, " "	
-	Miners' Oil	N
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١	Bleached Whale, # gal. 60¢	
	Offigires:	
E	Asphaltum, Cuban	6
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STEEL NAILS JULY 1884 IRON AILS &

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WARRANTED TEMPERED STEEL-EDGE 14 WIDE.

THE			
BINGHAMTON	OIL	REFINING	Co.,
Established 1867.		BINGHAMTON, N. Y., U. S.	A.
MANUFACTURERS OF THE CELLBRATED			
"BINGHAMT	ON (CYLINDRO)IL"

MACHINERY OILS OF EVERY DESCRIPTION.

"OLD PIONEER" Cylindroil. "MECCA VALVE" Cylindroil. "HERCULES" Cylindroil. "MECCA" Engine Oil.

" PEERLESS " Engine Oil. "GOLDEN" Engine Oil.



" PARAGON" Machinery Oil. "ALASKA"

Machinery Oil. "HERCULES" Engine Oil. FRANKLIN" Machinery Oil.

"PONDROLINE" Roller "BLACK DIAMOND" Axle Oil.

ANTI-CORROSIVE .- An absolute preventive of Rust and Oxidation of polished Metal Surfaces.

Buy "BINGHAMTON" Oils if you desire Perfect Lubrication. Send for descriptive Circular and Prices.





Established in 1874. 24 and 26 West Street, Cleveland, O. 101 Chambers Street, New York. CLEVELAND TWIST DRILL CO. 85 Queen Victoria St., London, Eng. THE WILMOT & HOBBS MFG. CO., COLD ROLLED IRON AND STEEL

CHENEY & SON, MANLIUS, N. Y.
MANUFACTURERS OF LIGHT AND MEDIUM WEIGHT

GRAY IRON CASTINGS.

-ALEXANDER

Elizabethport Steam Cordage Co., CORDAGE OF ALL KINDS.

BINDER TWINE A SPECIALTY.

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HARDWARE NOVELTIES.

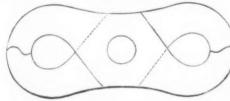
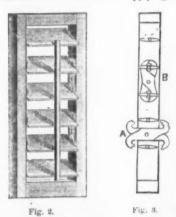


Fig. 1 .- Doub'e Clasp Blind-Slat Holder.

the market. This clasp consists of two pieces of sheet metal, preferably brass, united at the one inch in diameter, which are held in position On Feb center, and moving about the pivot thus pro-The parts are made slightly conso as to afford the necessary spring for taking the end motion of the blind slat. Fig shows the method of applying the



Elevation and Section, Showing Application of Blind-Slat Holder.

device. It is opened as shown at A, and passed between two slats, after which it is closed as shown at B. In closing the ends encircle the pivots of two slats, as shown, and form a wedge between the slat and the stile of the blind. Fig. 2 shows the appearance of the blind with the holder in use. The special advantage to which the maker directs attention is that no tools are required for putting this device in place. It is self-contained and said to be very effective.

The Ohio Anti-Friction Door-Hanger.

Fig. 1 of the engravings shows a Door-Hanger with double adjustment made by the Whipple Mfg. Co., Cleveland, Ohio, and known in the trade as the "Ohio" hanger. This device is the production of a builder of

friction floor guide used with this hanger,

The Ball Hearing Door-Hanger.

The illustration below shows a Hanger known as the "Ball Bearing" Door-Hanger, which is manufactured by the Cohoes Iron Foundry and Machine Company, Cohoes, N. Y. A special feature of this hanger is the absence of journal bearings. By inspection of the engraving it will be seen that the traveling. ing it will be seen that the traveling-bar is of a shape very nearly corres-

The Ball Bearing Door-Hanger, Made by the Cohoes

Iron Foundry and Machine Co., Cohoes, N. Y.

photographs of Bordeaux, photograph al-Double-Clasp Blind-Slat Holder.

Fig. 1 shows, full size, a Blind-Slat Holder which John W. Harmon, of 65 Haverhill street, Boston, Mass., is now putting upon accordingly is noiseless. It is put in place without screws and can be easily removed. certain extent practical. Of the great world outside France they must have experience

an appropriation of \$200,000 by the last Congress. The contract provides that a channel 480 feet wide shall be cut through the bar, so as to give a depth of 28 feet at

On February 15 General Stone began

in a spacer of sheet metal by steel pins passing work on his plowing apparatus. Soundings showed that the bottom of the channel was hard sand, packed so firmly that it was not easy to sink a tube in it to get specimens He chartered the powerful tug Osceola and had it refitted at the Delamater Iron Works Four pumping engines of a capacity of 1200 gallons a minute each were put in, besides a hoisting apparatus and three big electric lights. On each side of the boat was placed a big iron pipe

a big iron pipe connected by a shoulder
joint to the pump. The pipes
were 52 feet long and 10
inches external diameter. At
the lower ends they were curved
forward, and ended in two nozzles, one of which pointed upward at an angle of about 45 and was 2½ inches in diameter, and the other opened directly in front, with a slight downward inclination, and was 1 1/2 inches long and 1/2 inch wide. At a pressure of 100 pounds to the square inch the pumps will send 4800 gallons of water through the four orifices in the ends of the two iron pipes at a speed of 7,000 feet a minute. The action of the water is continuous, as the pumps are in double gangs

freely through them. The lower edge of the traveling-bar is hollowed out, corresponding to the size of the balls, thus insuring accurate position at all times. The manner of has begun again, and in earnest, to scour and plow out Gedney's Channel. The hydraulic plows were lowered and the pumps began to work. The horizontal water jets drilled a path through the tough sand, and the upper jet blew the sand to the surface of the bay and scattered it. The ebb tide carried the sand out to sea at the rate of 1½ miles an hour. Particles of sand could be seen suspended in the foam and froth above

seen suspended in the foam and froth above the nozzles of the pipes.

Sundings made last week show an increase in depth of from 8½ inches to 2½ feet wherever the plows had been at work. One day seven double furrows, each 5 feet wide, were cut in two hours. When the weather is favorable it is proposed to plow 10 hours, and any five during each eight tide. hours a day, five during each ebb tide. There have been about 150 double furrows plowed so far. At the present rate it is be-lieved that a channel 200 feet wide and 28 feet deep will be cut by June I, and there is apparently no reason why the operations should not be extended until a channel 480 feet wide and 30 feet deep at low water is secured. The work has so far been more

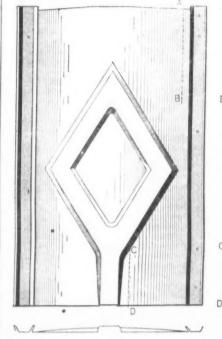
the tide will carry it away. Ocean steamers are aiding us. When the hard crust is once broken their screws stir up the soft sand be-neath and it floats away with the tide. We are getting along faster than the soundings show, for packed sand increases in bulk when it is stirred up, and the first result of the Fig. t.—The Ohio Anti-Friction Sliding Door-Hanger.—Whipple Mfg. Co., Cleveland Ohio.

many years' experience, and is the result of an effort made to combine the excellencies of many different hangers in the market, ing-bar are clearly shown in the engraving, and to produce something that would be It is claimed by the manufacturers that this hanger can be put in hanger can be put in place in less than one-quarter of the time required by others. The control of the time required by others of the control
The Patten Tin Shingle.

Messrs. Gummey, Spering, Ingram & Co., of 1023 Market street, Philadelphia, Pa., have just ready for the market a new tin shingle, illustrations of which are presented readily wear out. They direct attention to the fact that the hanger is so constructed and attached in the accompanying engravings. It is to be that the settling of the building or springing of the partitions cannot inknown to the trade as the "Patten" tin shin-gle. This shingle, it is claimed, combines many excellent features which render it more de terfere with its working. sirable for use than others which have pre-ceded it. It is needless to dwell upon the ceded it. It is needless to dwell upon the advantages claimed for tin shingles in gen-eral. Suffice it to say that this style of tin roof is growing in favor with the general public, and bids fair, from present indicaany other similar article we tions to make great inroads upon the old styles of tin roof, if not to entirely supersede The essential feature of this shingle them. A correspondent writing from is that the different pieces forming the roof Haiphong, the fown wlie the French have established at the delta of the Red River, in Ton-that they are fastened to the sheeting boards quin, gives a fair description of the manner in which the French begin trade in a new place. He says: "An inspection of the merchants here shows of the merchants here in the merchants here shows in such a way as not to be torn up by the wind. At the same time, contraction and expansion are fully provided for. This is accomplished by the double-locking dovetail shows of the merchants here joint, which is clearly shown in the engraverage of the merchants here.

the flanges of the plate already attached.

When so placed the corrugations, with their at the top of the lower plate, form an open contained flanges, form a joint which locks the second plate to the first already attached to the second plate to the second plate to the second plate to the first already attached to the second plate to the second



The Patten Tin Shingle. - Fig. 1. - General View

the shingles, in addition to all the water-tight, is of such a character as to advantages above enumerated, ornamental, admit of the contraction and expansion of the metal. The manufacturers claim that by this method the shingles are more firmly artistically treated, so as to harmonize with

so situated and of such a size as to pass over tiers. These triangular flanges, in connec-

When so placed in contained flanges, form a joint which locks space extending the second plate to the first already attached bood, which prevents the upward passage of the securer, which fills the joined valley, prevents the upward driving of water through the joint. These several features will be better undergroup by reference to the engravings. stood by reference to the engravings. The cleats or securers are each provided with two nail holes, thus giving the workman an opportunity of avoiding cracks or seams in the sheeting boards.

Some of the special advantages to which the makers direct attention may be enumerated as follows: The shingles being formed of a material of acknowledged excellence for the purpose, and the manner of application being such as not to interfere with the good qualities of the metal under variations of temperature, a roof covered with them and properly cared for will be very durable. The weight of this 100f covering, which is less than 80 pounds to the square, is so slight as to require less strength in the roof framing than for slate, for example, with which these shingles very closely compete. It is also claimed that it is impossible for this roof to leak. The side joints are evidently impenetrable, and the lap is so secured by the two triangular flanges and the open space between that under no combination of circumstances can water pass up the sheeting and produce a leak. The security of these produce a leak. The security of these shingles is such by reason of the method of fastening to the sheeting boards that they cannot be blown off of Shingle, with End Elevation and Partial Sections (AB and CD), Showing the Formation of the Hood

The Shingle, with End Elevation and Partial Sections (AB and CD), Showing the Formation of the Hood

The Shingle are packed in boxes for shipment containing a square, or to square feet. The design, it is claimed, is such as to make the use of

attached to the roof-boards and to each other than is possible by any other method in use. At the same time the operation is so simple that the work can be done by any person of

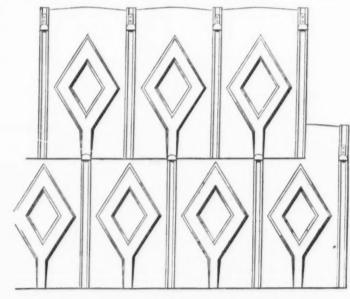


Fig. 2.—Manner of Flacing the Shingles on a Roof.

ordinary intelligence. The valley of the based on the same general principles as are secured. The work has so far been more successful than was expected.

"It is only a question now," said General Stone, "of how many times the bar must be plowed over. That depends on how far the sand moves each time and how quick the tide will carry it away. Ocean steamers



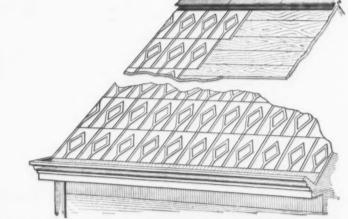
Fig. 3 .- Three Views of Cleat or Securer the Use of Which is Shown in the Preceding cut.

able to remove the roof covering at any time these corrugations and flanges can be readily. In with stamping and perforating machines,

embodied in the shingles. A piece of metal slightly bent is fastened to the ridge board, and its flanges extend into the side points of the ridge. The ridging is slipped on end-wise, and its lower flange is held in place by wise, and its lower angle is act in place by the cleats or fasteners that are used for hold-ing the lower edges of the shingles. This ridging is furnished in various lengths to meet requirements. It adds materially to the appearance of a roof. Another style is furnished when required, having a roll at the The Harrington & King Perforating

Company have in course of erection a two-story brick building, 40 x 150 feet, located and and V which they expect to have completed about disconnected and the joint unlocked.

Another prominent feature of this shingle is the hood which covers the joint of the plates below, and the securer or cleat which, orders for rolling screens, to go into the



she ps of the merchants here shows a plentiful lack of useful in any direction desired is provided. No mortising of the doors is necessary, the brackets to which the hangers are connected brackets to which the hangers are connected with wine and vermouth. The wheels are slightly flanged and work on a hardwood track. Fig. 2 shows the anti-

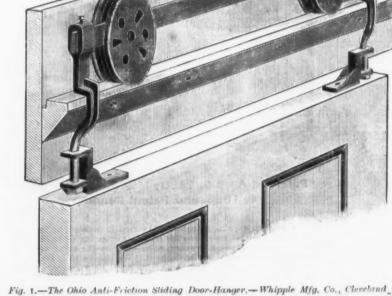




Fig. 2. Anti-Friction Floor Guide Used with the Ohio Hanger.

better adapted to the actual wants of builders | A circular which the company have issued than anything heretofore introduced. It will be noticed that the banger is very ber of detailed cuts, for which we have simple in its parts, and that an adjustment not space, in a more complete and sat isfactory manner than almost

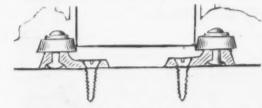


Fig. 3 .- Center Stop Used with the Ohio Hanger

have inspected.

quired by others. They also claim that by its construction it will not

Strikers in Chicago.—About 175 em-lovees of the American Cutlery Comployees of the American Cutlery Com-pany, Chicago, went out on a strike on the 6th inst., having made a demand of 15 per cent. advance on their wages, which was refused. They withdrew to an adjoining hall, where a meeting was held and a labor union organized, which embraces only the employees of these works. They agreed to impose a penalty of a sound threshing upon any member who returns to work during the strike at the same or less wages. The company report trade exceedingly dull, and say that they will suffer no inconveniences from the strike. and have no intention of acceding to their demand. The majority of the strikers are piece-workers, and there will be no difficulty Low-Silicon in filling their places with other workmen should it be found necessary to again commence operations.

Work was resumed by the North Chicago wills Company at its South Chicago Mills on Monday, April 5, in accordance with an agreement signed two or three weeks ago. The wages are fixed by a sliding scale. The mills will be run on two shifts of 12 hours each. About 1800 men are now employed. The North Chicago Mills of the same com-pany will probably close down in a few days for a short time in order to make the necessary changes for the manufacture of structural steel. The new manufacture will commence about July 1.—Journal of Com-

It might be questioned whether in the whole civil service of the United States there is a more important office than the chief appraisership of New York. Imagine a port that collects about \$130,000,000 duty out of \$200,000,000 all told, and further imagine that this vast amount is appraised and consequently adjusted in one large building over which the chief appraiser presides, and then we may understand what a chief appraiser of New York means.

All the employees of the McCormick Reaper Company, Chicago, except a score or so of non-union molders, quitted work on the 7th on a strike for the restoration of wages to the rates existing before the reduction of 15 per cent. Some 1600 men are now out.

The Wilcox Mfg. Co., of Aurora, Ill., are preparing to occupy their new works, to which they have just completed an addition 18 x 56 feet in size, two stories high, giving them 10,000 square feet of floor surface. The entire building is to be heated by steam.

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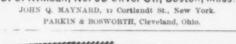
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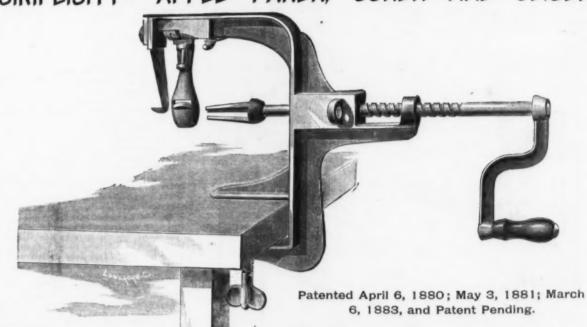
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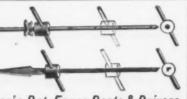
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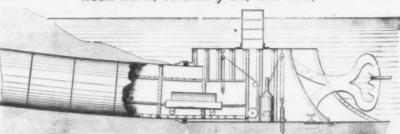
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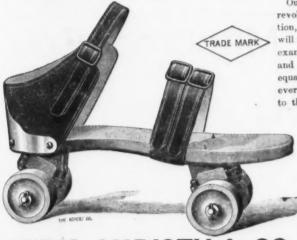
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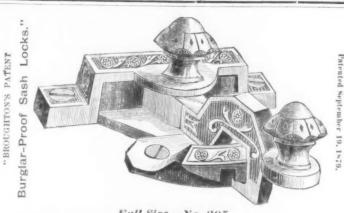
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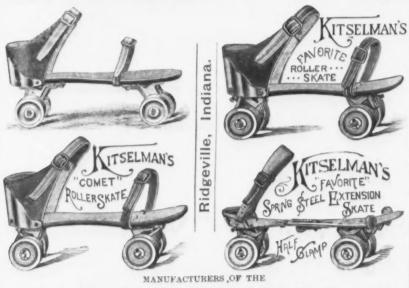
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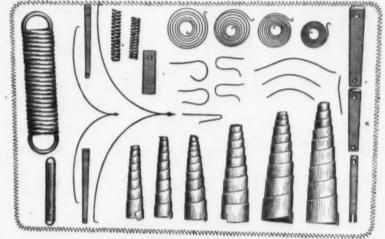
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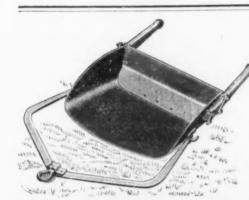
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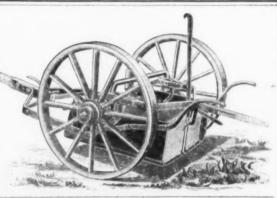


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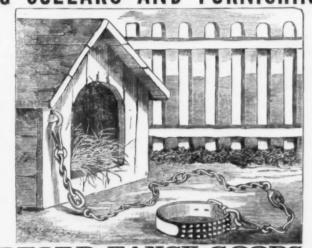
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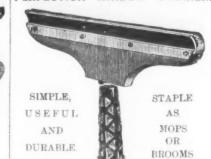
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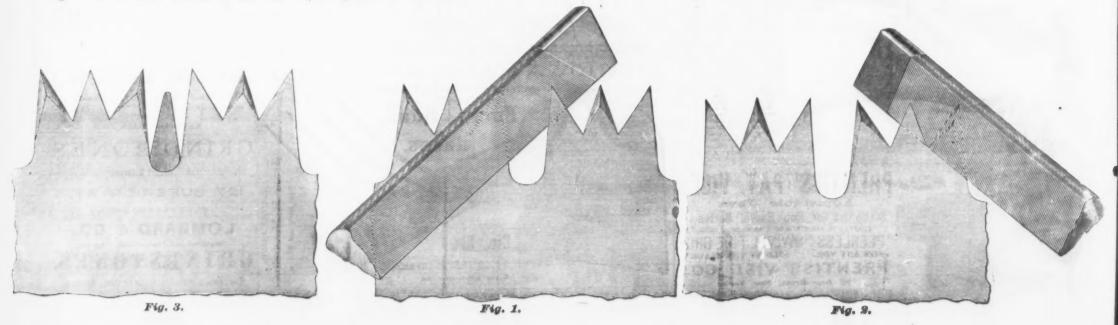


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Fig. 3 shows the section of the file in the guller of the saw.



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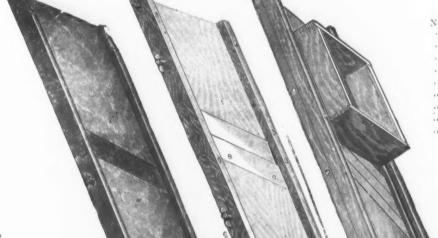
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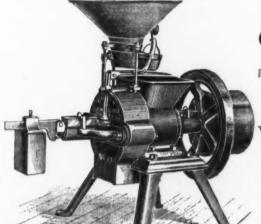
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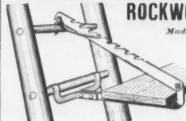
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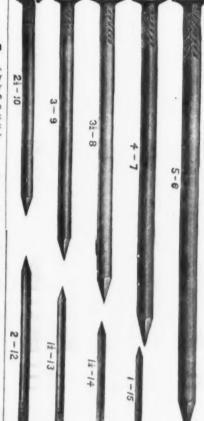


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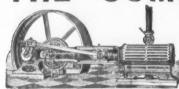
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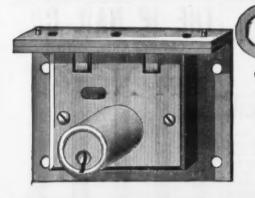
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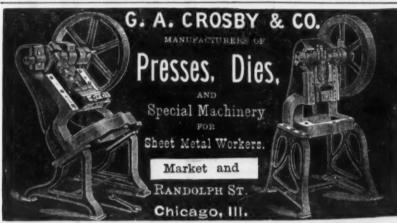
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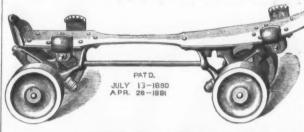
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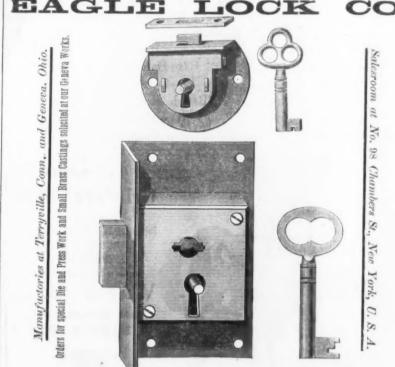
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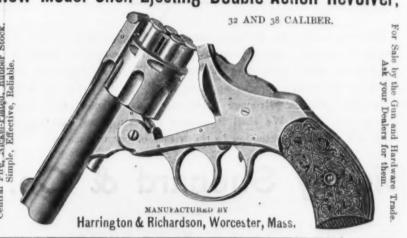
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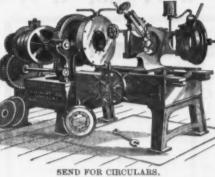
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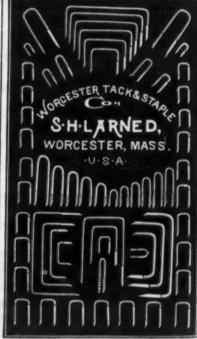
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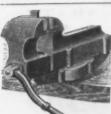
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Notes of Noveities.—This is a department of the journal always watched with interest by the trade, as it contains an account, from week to week, of the novelties which manufacturers and inventors are introducing to the notice of the trade. These articles are freely illustrated.

Special Correspondents.—The Ironmonger has a deserved reputation for its special correspondence from all the principal Continental, British and manufacturing centers. The writers are gentlemen holding important positions in the districts with which they are connected, and possess facilities for acquiring information specially suited for the columns of the Ironmonger. The Week. Legal News, Trade Notes, Bankruptoies, Foreign Notes, Colonial Jottings. Merchanics' Circulars, &c., are each department of the journal containing a digest of all matters of direct interest to the Iron, Hardware and Metal Trades. In addition to the above, there is a carefully classified list of Patents, together with Editorial Notes, French. Belgian and other Special Correspondence.

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to the Ironmonger and Metal Trades' Advertiser, with which is sent every fourth week the Foreign Supplement (see below), may commence from any date, but are not received for less than a year complete. The rate is \$5 per annum, inclusive of postage to any part of the world outside Great Britain, To every subscriber is presented, free, in he course of his year, a handsome and useful Ironmongers' Diary and Text Book, a work sold to non subscribers \$t 75 cents.

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MARCH 28, APRIL 28, MAY 23, JUNE 22, July 18, AUGUST 15, SEPTEMBER 5, OCTOBER 3 and 31, NOVEMBER 28, DECEMBER 26, 1885

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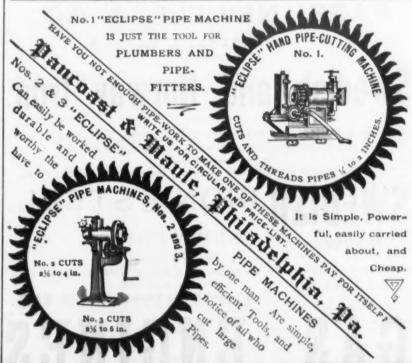
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e	Spoons Gis 535 & 105 Plated dis 50&5&5 \$ German Silver dis 40&10@50 \$ Britannia, Boardman's dis 60 \$ 6 \$ 6 \$ 6 \$ 6 \$ 6 \$ 6 \$ 6 \$ 6 \$ 6	2-16 and 3½ to 3 inches 94 to 5 inches 94 to 4 104 to 5 111 to 6 1
-	Britannia, Parker's. dis 60&10 % Tinned. dis 10 % Springs. Torrey. dis 60 % Other Company Compan	3-16 and 5½ to 6 14e 5-32 inch 18e 61 Web St. S. 25e
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N M M M	Dixon	list. Cut to specified lengths, 16¢ extra. Hammer Cust steel.
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W DW	Vises Solid Box. Trenton new list. dis 0.0 0.0 10 2 W renchess Agricultural. dis 0.0 0.0 10 2 Coes' Genulne. dis 0.0 10 2 Coes' Genulne. dis 0.0 10 2 Coes' Mechanics' dis 0.0 10 2 Coes' Mechanics, Mall. Bar dis 0.0 10 2 Coes' Mechanics, M	Cut to multiples or specified lengths, 15¢ extra. Miscellaneous Cast Steel. Auger and Auger Bit.
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×	Coppered, 0 to 18	Pick and Mattock, beveled (rolled S& Skate Steel 4/4% Table Cutlery, plain 3box
N M M C	Painted Barb Wire. 4446 Galvanized, No. 7 to 18Market List, dis	Table Cuttery, Develed
AMAN	Poerless No. 25	Spindle, subject to Machinery classification 556 Trap Spring Steel. 66 Forged Crank Pins and Latne Spindles. 756
NAMA	Wringers. Peerfess No. 236 Peerfess No. 2 36 Peerfess No. 2 38,00 Universal No. 2 38,00 Universal No. 3 38,00 Universal No. 2 38,00 Novelty No. 2, for common tubs. 30,00 Kxcelslor E, for stationary tubs. 39,00 Kxcelslor F Wringers. S30,00 dosen lots \$3,00 per dosen.	Piston Rods, forged to shapes. 7156 Slide Bars, plain. 7256 Slide Bars, forged to shapes. 756
***	PITTER LIBOUR	Miscellaneous Casi Steel. Auger and Auger Bit. 3e Axle Steel for carriages and wagons. 3e Frog Points and Plates. 5e Frog Side Bars. 5e Pick, plain (hammered) 5e Pick and Mattock, beveled (rolled 5e Table Cuttery bain. 3e Table Cuttery bain. 3e Pick and Cant Hook. 7e Coal and Grantte Wedge 7e Roller. 5e Spindle, subject to Machinery classification. 5e Trap Spring Steel. 7e Forged Crank Pins and Latne Spindles. 7e Piston Rods, plain. 7e Piston Rods, plain. 7e Piston Rods, forged to shapes. 7e Slide Bars, plain. 5e Slide Bars, forged to shapes. 7e Boller, Fire-Box and Flue Sheets, not less than 3-16 thick Boller, Fire-Box and Flue Sheets, not less than 3-16 thick Boller, Fire-Box and Flue Sheets, not less than 3-16 thick
AAAA	PITTSBURGH.	thick. 56 Circulars and semi-circulars, when ordered sepa- rately. 66
REEK	TERMS Note or acceptance at 60 days, with current rate of exchange on New York, or a discount of 2 k cent. for cash, if remitted within 10 days from date of invoice.	Boller, Fire-Box and Flue Sheets, not less than 1/6 thick. Circulars and semi-circulars, when ordered separately. Smoke Stack, to shape. Locomotive Tank Steel. Square. Round. Half Round and Flat Bastard, 8-inch and over.
* * *	For fluctuations and discounts on eard rates see weekly Pittsburgh Trade Report. The following are card rates. Fint Bar.	Taper, 3%-inch and over
* X X X	156 to 4 by \$6 to 1 Inch 2.5¢	Square. Round. Hair Round and Flat Bastard, 8 Inch and over
**	1)4 and 1)4 by \$6 to \$4	1x4 and over 644 1x3-16, 2x3-16 and 0-32 76 1 and 13-16x36 and 6-32, 4x3-16 and 6-32 0 e 8 and 8-x4-4 1 and 15-32 0 e
30	1 to 1%	Solid Safe Cast Steel 106 Three and Five Ply Cast Steel 56 Apricultural Implement Cast Steel 66
% % d	385 to 4 3.5¢ 5 16 3.3¢ 444 to 5. 4.05 3.5¢ \$4 to 16 2.6¢ 3-16 5.5¢	Horse Rake Steel, cut to lengths. Crucible
MMA	74 to 114	Beveled Hoe and Shovel Steel in Bars. 456 Crucible Plow Steel in Slabs. 456 Spring. Bessemer and Open Hearth.
-	% to 134 inch. 3.2¢ is inch. 4.0¢ 5.5¢ inch. 5.5¢ inch. 5.5¢	Spring 24g Spring spiral and taper, cut to lengths 35g Tire, 2-16 thick and above 24g Toe Calk 25g Plow 25g Axie Billets 35g
W.W	74 inch, Nos. 13 and 14. 3.76 18 "11 and 12. 3.76	Plow
× 0	14 13 and 14 4.0e 15 and 15 3.1e 16 17 18 18 18 18 18 18 18 18 18 18 18 18 18	Plow
80	Sig to 6 by	Thrasher Teeth. 346 Rolled Hammer Hillets
×	\$\forall \frac{16}{26} \text{ by \frac{1}{2}} \text{ and 5-16} \qquad 5-16 \qqqq 5-16 \qqq	Inrasher Steel. 2467 Thrasher Teeth. 3467 Rolled Hammer Billets 3467 Tersac.—Four months 3 per cent. discount for cash, if remitted within 30 days. Hother and Castings.
× ×	11/4 to 6 by 1/4 to 3-16. 3.0¢ 11/4 to 6 by Nos. 11 and 12 3.1¢ 1 to 13/4 by 1/4 to 3-16. 3.1¢	Furnace Floor and Straightening Plates. 1566 Housings and Castings not otherwise specified 2566 Guide Plates 2566 Spindles and Coupling Boxes 1566
5	5g and 13-16 by 16 to 3-16. 3.4e 5g and 13-16 by Nos. 11 and 12. 3.5e 4g and 11-16 by 16 to 3-16. 3.7e	Sand Rolls and Pinions, large size. 2 % Sand Rolls and Pinions, small size. 2 % Pipe Mill Castings. 3 #
**	\$4 and 11-10 by Nos. 11 and 12 S.86 \$4 and 9-16 by \$4 to 3-16 . 4.0¢ \$54 and 9-16 by Nos. 11 and 12 4.1¢ \$4 inch by \$4 and 3-16 . 4.2¢	Spur and Bevel Wheels, large 35 g Spur and Bevel Wheels, small 4 g Pulleys up to 30 inches 4 g
5 5	13 inch by Nos. 11 and 12	Housians and Castings not otherwise specified Signated Bousians and Castings not otherwise specified Signation Boundary Spindles and Coupling Boxes. Signation Spindles and Coupling Boxes. Signation Spindles and Rolls and Philons. Israel size. Signation Spindles and Rolls and Philons. Small size. Signation Spindles Sp
*	13 to 2, No. 19. 3.5¢ 13 to 2, No. 20 3.5¢ 13 to 2, No. 21 3.7¢	6 to in. diam., to 20 in. long
* * *	15-16, 1, and 136, Nos. 13, 14 and 15. 3,54 15-16, 1, and 136, Nos. 16, 17 and 18. 3,64 15-16, 1, and 136, Nos. 19 and 20. 3,74	After October 1, 1881, no discounts will be made at settlement, as heretofore, prices quoted being net. White and Red Lead.
× 0	15-16, 1, and 1½, No. 21. S.86 15-16, 1, and 1½, No. 22. S.96 74, Nos. 13, 14 and 15. S.76 74, Nos. 16, 17 and 18. S.76	Strictly Pure White Lead in Oil in kees, 5%¢; in 25 b. Tin Pails, ½¢ \$ b over keg price: 12½ \$ tin Pails, 1¢ \$ b over keg price: assorted, i to 5 b cans, 3¢ \$ b over keg price: 10½ \$ tin Pails, 1¢ \$ b over keg price: bry White Load in barrels. 5¼¢ Red Load, very brilliant, in kegs and barrels. 5¼¢ Freights equalised with all points where White Lead is made.
4 4	96 Nos. 19 and 90	by Over keg price. Dry White Load in barrels Red Lead, very brilliant, in kegs and barrels
***	13-16, Nos. 16, 17 and 18. 4.0¢ 13-16, Nos. 19 and 20. 4.1¢ 13-16, No. 21. 4.2¢	Freights equalised with all points where White Lead is made. Terms: Note at 60 days, or if paid within 15 days from date of invite: a discount of 2% per cent. will be allowed, but not otherwise.
*	\$\ \text{Nos. 13, 14 and 15.} \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	allowed, but not otherwise. Window Glass. Discount, ~75% Single Strength 75 & 10% Double. Prices current, \$\pi\$ box of 50 feet.
K 16 K	No. 31 4. No. 92 11-16, Nos. 13, 14 and 15. 11-16, Nos. 16, 17 and 18.	current, # box of 50 feet. Single Strength.
6	11-16, Nos. 19 and 20. 4.4¢ 11-16, No. 21. 4.5¢ 11-16, No. 22. 4.6¢	\$2 Sizes. Aa. A. B. C.
t	56, Nos. 16, 17 and 18. 4.56 56, Nos. 19 and 30. 4.66 56, No. 19 and 30. 4.76	Sizes. Aa. A. B. C. 25 6 x 8 to 10 x 15 \$8.75 88.00 \$7.50 \$7.00
8	56, No. 22 4.86 66, No. 32 4.96 9-16, Nos. 13, 14 and 15 4.66 9-210, Nos. 16, 17 and 18 4.76	25 6 x 8 to 10 x 15 . \$8.75 88.00 \$7.50 \$7.00 39 11 x 14 to 15 x 28 . 9.25 8.50 8.00 7.25 48 10 x 24 to 20 x 28 . 10.75 9.76 8.75 7.05 54 15 x 34 to 24 x 20 . 12.25 10.75 9.00 60 80 x 28 to 24 x 28 . 12.00 11.50 9.75
	9-16, No. 21 4.9¢ 9-16, No. 21 4.9¢ 9-16, No. 22 4.9¢ 9-16, No. 23 5.0¢	25 6 x 8 to 10 x 15. \$8.75 88.00 \$7.50 \$7.00 \$7.00 \$9.11 x 14 to 15 x 34. 9.55 8.50 7.05 8.00 \$7.25 48.10 x 24 to 25 x 28. 10.75 9.75 8.75 7.75 44.15 x 34 to 34 x 30. 12.25 10.75 9.00 60 99 x 28 to 24 x 36. 12.00 11.50 9.75 9.00 90 x 28 to 24 x 36. 12.00 11.50 9.75 9.00 80 x 46 to 36 x 46. 14.00 13.25 10.75 80.00 x 46 to 36 x 46. 14.00 13.25 10.75 9.00 90 x 36 to 36 x 46. 14.00 13.25 10.75 9.00 90 x 36 to 36 x 46. 14.00 13.25 10.75 9.00 90 x 36 to 34 x 36. 90 30 x 56 to 34 x 36.
6	be inch, Nos. 13, 14 and 15.	94 34 x 58 to 34 x 69 100 8 x 60 to 40 x 60
	14	90 30 x 6d to 34 x 58
	1.10¢ # h extra will be charged for each gauge lighter than the lightest indicated. 1.10¢ # b extra will be charged for cutting Hoops to specified lengths.	70 26 x 36 to 26 x 44. 23,25 21,25 17,25 80 26 x 46 to 30 x 50. 24,00 22,50 18,00 84 30 x 52 to 30 x 54. 35,75 23,25 19,25
-	specified lengths. Barrel Hoops. 114 to 2 in., cut to length. 9 to 11 b. w set of 6 hoops. 3.54	94 35 x 66 to 34 x 66. 97.75 25.00 21.75 94 35 x 60 to 40 x 60. 38.25 30.00 27.75
-	### ### ##############################	Sizes above — \$10 \$\vee box extra for every \$\delta\$ inches. An additional 10 per cent. will be charged for all glass more than \$40 inches wide. All sizes above \$2 inches in length, and not making more than \$1 united inches, will be \$4 united inches.
	No. 9 and heavier	inches, will be sharged in the 84 united inches bracket.
	Plow Wings Sheet Iron Sheet Iron Common Charcoal Juniata S.5φ 6.5φ 6.5\phi 6.	Hubbard, Bakewell & Co.'s Goods. Axes, Single Bit, Lippincott
	Nos. 10 to 14	Hubbard, Bakewell & Co.'s toods, Axes, Single Bit, Lippincott. per dos., \$7.25 Axes, Single Bit, James & Co. per dos., \$7.25 Axes, Double Bit, Lippincott per dos., \$18.30 Axes, Double Bit, James & Co. per dos., \$18.30 Axes, Double Bit, James & Co. per dos., \$19.00 Drain Tools, Bist. dis \$9.5 Hoes, Flanters' dis \$6.5 Handles, Cross Cutare Eye, German per dos., \$2.56 Handles, Cross Cutare Hoes, Hiveted per dos., \$2.55 Baws, Cross-Cut, H. B. & Co., Champion, per foot Saws, Cross-Cut, H. B. & Co., Champion, per foot Saws, Cross-Cut, Lippincott, Champion, per foot net. \$0.27
	No. 27 4.7¢ 6.2¢ 7.7¢ No. 28 5.1¢ 6.6¢ 8.1¢ All aheets No. 18 and lighter, over 30 Inches wide, not less than 2.10¢ extra.	Hoes, Solvill Pattern dis 60 % Hoes, Handled, Square Eye, German dis 50 % Handles, Cross Cut per dos. 2,25 Handles, Shovel Bent Horsed Riveted per dos. 2,25
	Wood's Futent Flantshed Sheet. 1st quality (h)	Saws, Circular dis 45 ≤ Saws, Long dis 46 ≤ Saws, Long dis 40 ≤ Saws, Cross-Cut, H. B. & Co., Champion, per foot
	Box Wood's Piglest Plantshed Sheef, Def	Saws, Cross-Cut, Lippincott, Champion, per foot \$0.30
1	00 @ 925 \$ discount. 134 by \$6 by 5-16	
1	112, 134, 2 and 234 3 3.3¢ 134 inch 3.4¢ 14 inch 3.4¢ 14 by 1 hoh for Play Handles	THE COLU
1	114 by 4 " 8.84 116 by 4 " 8.84 T Rail. 8.04	Entirely new, being stamped from one plate of steel and superior to cast-iron sinks in every particular,
	8 lbs. to the yard2.9¢ 20 lbs. to the yard2.8¢ 122.8¢ 282.8¢ 162.8¢ 202.8¢ 8plics Joints for 12, 16 and 20h. Ratl. 40¢ sash; 28	being lighter, stronger and more durable.
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U	yunder and l'Andside irou	THE KILBOURNE & JACO

2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	See Pittsburgh Trade Report. Best Quality Refined Cast Steel. Square, Flat, Octagon and Round. to 2 inches, inclusive	
5 % 0 % 0 % 0 %	See Pittsburgh Trade Report.	
00 %	Ordinary Sixes, 36 to 2 inch Round	
50	7-82 inch	-
et its 0 %	Cut to specified lengths, % extra throughout the list. Cut to specified lengths, % extra. Crucible Cast Steel. Crucible Cast Steel. Open Hearth Cast Steel. Crucible. Sheet Steel. Crucible. Bessener & Best. 2 d Onal 3 d Onal Cast Steel.	
5 % 6 % 6 % 6 % 6 % 6 % 6 % 6 % 6 % 6 %	To 21 gauge 956¢ 816¢ 616¢ 66 66 1¢ extra for each additional gauge.	,
5 % % % % % % % % % % % % % % % % % % %	Miscellaneous Cast Steel. Auger and Auger Bit. Axle Steel for carriages and wagons. Se Frog Points and Plates. Frog Points and Plates. Frog Side Bars. Pick, plain (hammered). Fick and Mattock, beveled (rolled Se Skate Steel. 4 % Skate Steel. 4 % Skate Steel. 4 % Froble Cutlery, plain. 1 % % Skate Steel. 4 % Froble Cutlery, beveled. 4 % Froble Cutlery, beveled. 4 % Fike and Cant Hook. 7 % Roller. Fike and Grantite Wedge. 8 % Roller. Forged Crank Pins and Latne Spindles. 7 % Roller. Forged Crank Pins and Latne Spindles. 7 % Side Bars. Platon Rods, forged to shapes. 8 % Side Bars, plain. 8 % Side Bars, forged to shapes. 8 % Side Bars forged to shapes.	
ine in	Table Cutlery, beveled	
ota er	Forged Crank Pins and Latne Spindles. Oge Plation Rods, piain. 94 Plation Rods, forgred to shapes. 75g/s Silide Bars, piain. 56 Silide Bars, piain. 57g/s Open Hearth or Bessemer 75g/s	
	solver, Fire-Box and Flue Sheets, not less than 3-16 thick. Boiler, Fire-Box and Flue Sheets, not less than 45 thick. Circulars and semi-circulars, when ordered separately.	
of of	Locomotive Tank Steel	A
5¢ 6¢ 6¢ 7¢ 9¢	Horse and Shoe Rasp Gg	It
7¢ 9¢	thick. Circulars and semi-circulars, when ordered sepa rately. Smoke Stack, to shape	
3¢ 5¢ 5¢ 7¢	Horse Hake Steel, cut to lengths, Crucible of Hoe, Crucible of Corn Stalk Cutter, bevoled of Corn Stalk Cutter, bevoled the Hoe and Shovel Steel in Bars. She Crucible Plow Steel in Slabs. She Crucible Plow Steel in Slabs.	Blan
0¢ 5¢ 6¢	Toe Calle	Lit
5¢ 0¢ 8¢ 4¢	Scythe Back Steel. 3366 Grain Drill Bars 2366 Grain Drill Points 2366 Reliable Steel 3366 Grain Drill Points 3366	ent Boo Ha
7¢ 7¢ 8¢ 0¢ 5¢	Terms - Four months : 8 per cent di	wi
0¢ 1¢ 1¢ 2¢ 4¢	Housings and Castings not otherwise specified 24 g Guide Plate Castings not otherwise specified 24 g Spindles and Coupling Boxes. 14 g Sand Rolls and Pinions, is guide 2 g Sand Rolls and Pinions, small site 2 g Pipe Mill Castings and Sand Rolls and Pinions, small site 2 g Sand Rolls and Pinions Site 2 g Sand Rolls an	N
5¢ 7¢ 8¢ 0¢ 1¢	ff remitted within 30 days. Eurnace Floor and Straightening Plates. Furnace Floor and Straightening Plates. Guide Plates. Straightening Plates. Stand Rolls and Plnions. large size. Sand Rolls and Plnions. small size. Sand Rolls and Flnions. small size. Sand Rolls and Plnions. small size. Fipe Mill Castings. Floor Mill Castings. Floor Spur and Bevel Wheels, large. Spur and Bevel Wheels, small. Fulleys over 30 inches. Stand Rolls and Plnions. Stand Rolls and Plnions. Fipe Mill Castings under 50 m. Spur and Bevel Wheels, small. Fulleys over 30 inches. Stand Rolls and Plnions.	
40 50 50 70 80	0 to in. diam., to 20 in. long. 316e 8 to 15 in. diam., 8 to 40 in. long. 32e 25 to 24 in. diam., 15 to 72 in. long. 32e 14 to 31 in. diam., 17 to 108 in. long. 32e After October 1, 1881, no discounts will be made at settlement, as herestorier, prices quoted being net.	4
7¢ 8¢ 9¢ 7¢	TRYS. 4	
10	Strictly Pure White and Ked Lead. Strictly Pure White Lead in Oil in kegs. 5467; in 25 b Tin Falls, 167 b over keg price: 1236 b Tin Palls, 16 b b over keg price: assorted, 1 to b b cans, 36 b B over keg price. Dry White Lead in barrels. Dry White Lead in barrels. Litarge (Potter's Lead) Frights equalised with all points where White Frights equalised with all points where White Terms: Note as 60 days, or if paid within 15 days from date of involo; a discount of 25g per cent, will be	-
10	allowed, but not otherwise. Window Gluss. Discount, 758 Single Strength 75 & 108 Double. Prices current, \$\psi\$ box of 50 feet.	В
50	Single Strength.	Butte.
70	25 6 x 8 to 10 x 15. \$8.75 88.00 87.50 87.00 39 11 x 14 to 15 x 24 9.25 8.50 8.00 7.25 8.00 8.00 7.25 8.50 8.00 8.00 8.00 8.00 8.00 8.00 8.0	Acting Spring
Le Le Le Le	98 90 X 50 to 58 x 54. 99 30 X 50 to 58 x 50. 94 34 X 58 to 58 x 60. 100 60 X 60 to 40 X 60. Double Strength. 25 d X 8 to 10 X 15. 30 11 X 14 to 15 X 24. 14.50 13.35 12.55 11.25 10.50	ago Double.
re to	100 20 x 20 to 40 x 20	M. Patr Chic
455 & 555 455 & 555	Sizes above — \$10 \(\psi\) box extra for every \(\beta\) inches. An additional 10 per cent, will be charged for all glass more than 40 inches wide. All sizes above \(\beta\) inches in length, and not making more than 81 united inches, will be sharged in the 84 united inches bracket.	PI
	Hubbard, Bakewell & Co.'s Goods. Axes, Single Bit, Lippincott. per dos., \$7.25 Axes, Single Bit, James & Co. per dos., \$7.25 Axes, Double Bit, James & Co. per dos., \$15.00 Axes, Double Bit, James & Co. per dos., \$15.00 Drain Tools, Ins. dis \$0.5 Hose, Flashers dis \$0.5	
0. 9.99	Boes, Handled, Square Eye, German. Blook, Bandles, Cross Cut. Bandles, Bhovel, Bent, Bored, Riveted, per dos., \$2.50 Bandles, Bhovel, Bent, Bored, Riveted, per dos., \$2.25 Saws, Creular dis 45 Saws, Cross-Cut, H. B. & Co., Champion, per foot net. Saws, Cross-Cut, Lippincott, Champion, per foot Saws, Cross-Cut, Champion, per foot Saws, Champion, per foot Saws, Champion, per foot Saws, Champion, per	1

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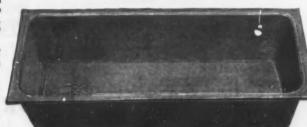


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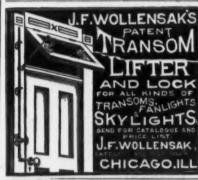
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Steel Frame, with patterns ... dis 20 \$
New Rogers, all Iron ... dis 20 \$
Bracket Saw Blades.—Griffith's pat, \$ gross 70¢ \$
Brossed Shelf M. B. & D. new list ... dis 40&10 \$
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Butts.—Union Fast Joint ... dis 40&10 \$
Union Loose Joints ... dis 70&10 \$
Union Japanned Acorn ... dis 70&10 \$
Union Silvered Acorn ... dis 70&10 \$
Union Bloston Finish ... dis 70&10 \$
Union Boston Finish ... dis 70&10 \$
Wrought Brass ... dis 70&10 \$
Carriage Bolts. Eagle Norway ... dis 70 \$
Carriage Bolts. Eagle Norway ... dis 70 \$
Carriage Jacks.—Cilmax No. 1 \$ dos 20 \$
Universal No. 1 \$ dos 20 \$
Universal No. 2 \$ dos 15.00 \$
Universal No. 2 \$ dos 6.00 \$
Universal No. 2 \$ each \$ 6.00 \$
Universal No. 2 \$ each \$ 6.00 \$
Universal No. 3 \$ each \$ 6.00 \$
Universal No. 5
Coll 5.16.... Coll 5.16.... Coll 34.... Coll 7.16. Coul 7:16.
Coul 1/2.
Chalk.—White, Carpenter's. \$\psi\$ growth \$\text{growth} \text{growth} \text{gro 12e dia 70&10 g dia 85 g dia 85 g dia 80 g dia 60 g dia 60 g dia 50 % dia 50 % dia 50 % dia 50 g dia 50 g Jute
Cow Ties...
No. 50 3 ft. No. 6 Wire, with toggle...
No. 50. 3 ft. No. 6 Wire, with snap...
No. 40. 35, 3 ft. No. 6 Wire, with snap...
No. 40. 45, 35 ft. No. 6 Wire, with toggle...
No. 50. 4 ft. No. 4 Wire, with snap...
No. 50. 4 ft. No. 4 Wire, with snap...
No. 60. 44 ft. No. 8 Wire, with snap...
No. 60. 44 ft. No. 5 Wire, with snap...
Orew Bars...
Cas Sites...
Tren Steal-pointed...

Butcher Knives, Wood's, Lap Bolster, Square Butcher Knives, Wood's, Lap Bolster, Squa Handle. 8teak Knives. Lap Bolster, Oval Handle. 8ticking. Skinning. Butcher, Common Round Handle, Wood's. Shoe Knives, Wood's. Dividers.—Cook's. Dag Collars. Dog Collars...
Door Springs.—1 cr
Imitation Torrey's Rod...
Gem Coll, new list...
Crown.
Warner's. .dis 20 ♥ doz \$1.6; ♥ doz 1.4; dis 50&10; ♥ doz \$1.2; ♥ doz 2.0; Door Stops.—Thurston's..... Drawer Knobs.—Thurston's dia 50 Drills.—Morse Bitt Stock..... Morse Straight Shank..... dis 40 5 Emery.—Wellington Mills. Walpole Emery Mills..... Turkish, in 10 2 cans..... Enameled Ware.— Standard Mfg. Co. Kettles. Standard Sauce Pans. Felloe Plates.—Wrought.
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Nicholson File Co..... Fluting Machines.-Knox List, \$4.00. .dis 25 Forks.—W. C. & Co. Manure..... Eastern Tool Co.'s. Manure..... Hammers.—Maydole's..... Hartford Hammer Co Hangers & Rollers.—Anti-Friction. Acme Rollers. Climax. Common Hangers. Common Rollers. dis 40&10 Hand Screws. ..dis 35 % | dis 35 | dis 36 | d

Ice Cream Freezers.—Packer's, new list.dis 50&5 Lanterns.—Tubulars, No. 0.
Lawn Mowers.
Continental . # dox \$7.50 Quaker City.... Lead.—Sheet.... NDING Locks.—Norwalk..... Eagle Cabinet...... Ragle Trunk...... Mallory, Wheeler & Co. ..dis 66%&5 % ...dis 40 % ...dis 15 % .dis 66%&5 % Manure Forks.—W. O. & Co.... Eastern Tool Co.'s....dis 20 Money Drawers.-Tucker's Alarm. P doz \$22.50 Mouse Traps,-Delusion.....
Novelty..... .₩ dos 1.25dia 60 5 18 in., \$\psi\$ dos. pair.. \$\psi \cdot 2\psi in.\$ \$\psi\$ dos. pair. \$\psi \cdot 2\psi in.\$ \$\psi\$ bathing. \$\psi\$ \$\psi\$ 18.6¢ Eagle Brand Tarred Sheathing. \$\psi\$ 2 \$\psi\$ Common, Dry Sheathing. \$\psi\$ 2 \$\psi\$ Common, Dry Sheathing. \$\psi\$ 2 \$\psi\$ \$\psi\$ 18.6¢ Eagle Brand Dry Sheathing. \$\psi\$ 2 \$\psi\$ \$\psi\$ 18.200. \$\psi\$ 6 \$\psi\$ 10.5\$ \$\psi\$ 18.00. \$\psi\$ 50 & 10.5\$ \$\psi\$ 18.00. \$\psi\$ 50 & 10.5\$ Planes.
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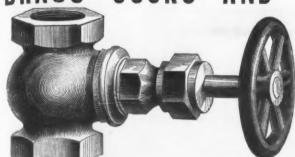
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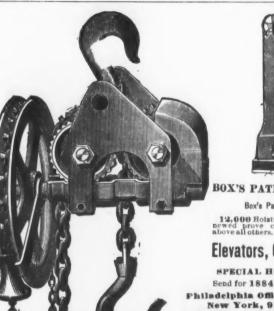
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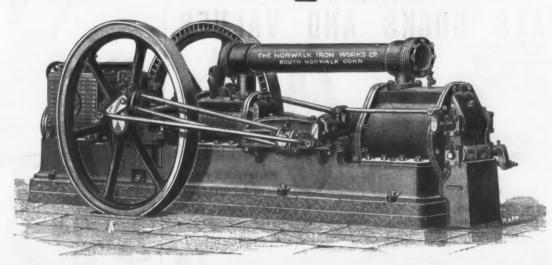
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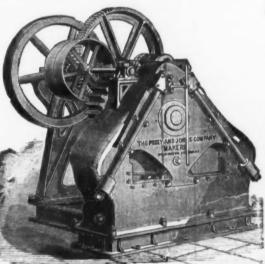
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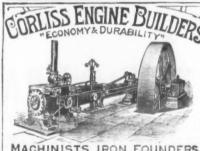
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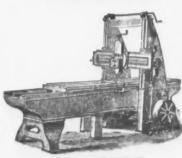
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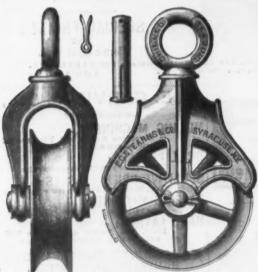
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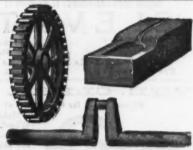


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